

IST URĦI-TEŠUP DER KÖNIG VON ZULAPA?

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Trotz der zahlreichen Hinweise auf UrĦi-Tešup enthalten in der internationalen hethitischen Korrespondenz, die sich auf dessen Verbannungszeit beziehen, bleiben die daraus gewonnenen Erkenntnisse in hohem Masse widersprüchlich und spekulativ. Edels Notizen am Rande seiner Übersetzung der Korrespondenz mit Ägypten über UrĦi-Tešups Schicksal, sind bereits 2003, im Rahmen eines Symposiums in Leiden streng kritisch betrachtet worden¹. Am weitesten ging Itamar Singer² unter anderem grundsätzlich die Auffassung von Edel in Frage zu stellen, dass sich daraus Belege für einen ägyptischen Aufenthalt UrĦi-Tešups ergäben.

Die im vorliegenden Artikel versuchte Identifizierung UrĦi-Tešups mit dem in der gleichen Korrespondenz ebenfalls vorkommenden anonymen König von Zulapa, könnte die bisherigen Wissenslücken füllen. Die Gründe, in beiden bisher separat betrachteten Individuen plötzlich Verweise auf nur die eine und dieselbe Person zu suchen, können kurz erklärt werden. Da ist zum Einen die räumliche Nähe der überlieferten Zufluchtstädte UrĦi-Tešups in Niya und Zulapa³ selbst, zum Anderen die stets abwechselnde Nennung beider Könige beziehungsweise die Austauschbarkeit der auf sie bezogenen Aussagen in der diplomatischen hethitisch-ägyptischen Korrespondenz. Zusätzliche detailliert unterbreitete Evidenz wird diese zunächst knapp begründete Hypothese erhärten.

Laut seiner Apologie soll Ḫattušiliš III. aus Rücksicht zu seinem Bruder das Leben UrĦi-Tešups verschont und ihn statt dessen in Verbannung nach Nuḫašše geschickt haben, wo er ihm einen Aufenthaltsort zuwies. Auch ein Text, ausführlich von Th.P.J. van den Hout⁴ behandelt, CTH 569, bezeichnet Städte in dem Land von Niya als diejenigen, welche UrĦi-Tešup von Ḫattušiliš III. vertraglich überschrieben wurden. Nachdem die hethitische Krone diese Städte infolge der Zwangsumsiedlung UrĦi-Tešups an die Küste und seiner späteren Flucht zunächst wohl wieder eingezogen hatte, sind sie laut CTH 569 im Zusammenhang mit den Krönungsvorbereitungen des jungen Tudḫaliaš IV. wieder den Söhnen UrĦi-Tešups zurückgegeben worden. CTH 569 stellt fest, dass „*das Gelübde des Vaters seiner Majestät*“ (Ḫattušiliš III.) die Übergabe einer „*Siedlung*“ in Niya an UrĦi-Tešup vorsah. Diese sei nun an die Söhne von UrĦi-Tešup (wieder?) auszuhändigen, während man mit UrĦi-Tešup in dieser Angelegenheit keinen Kontakt suchen sollte.

¹ Publiziert erst 2006: Th.P.J. van den Hout (ed.), *The life and times of Ḫattušili III and Tudḫaliya IV. Proceedings of a symposium held in honour of J. de Roos, 12-13 December 2003, Leiden*; *PIHANS* 103. Leiden: Nederlands Instituut voor het Nabije Oosten.

² Singer, 2006.

³ Identifiziert mit Šalbā (35° 20' nBr/36° 25' öL). Belmonte Marin, 2001; del Monte und Tischler, 1978.

⁴ van den Hout, 1998.

Damit scheint gesichert, dass der ursprüngliche Verbannungsort von Urḫi-Tešup in Niya – ein Teil von Nuḫašše – gewesen ist.

Die Identifizierung von Zulapa mit Šalbā in Syrien – ungefähr 10 Kilometer südlich von Apamea am Orontes gelegen – erlaubt diesen Ort ebenfalls innerhalb des plausiblen historischen Gebietes von Niya und Nuḫašše zu suchen. In der syrischen Ortsnamensliste Tuthmosis III. nimmt D-r-b, vokalisiert Du-ra-b, Platz 130 ein, während Niya an 132. Stelle genannt wird.⁵ Das zwischen Zulapa und Niya eingeschobene š-p-c-š (Š-p-ca/u-ša/i, u) bleibt unlokalisierbar. Du-ra-b wird allgemein als die ägyptische Wiedergabe des keilschriftlichen Zulapa/Zulabi betrachtet. Da der Verbannungsort Urḫi-Tešups immer nur vage als im Lande von Niya, beziehungsweise in Lande von Nuḫašše umschrieben wird, spricht nichts gegen die Annahme, dass es sich dabei ganz konkret hauptsächlich um Zulapa gehandelt haben kann.

Diesen Verbannungsort musste Urḫi-Tešup auf Veranlassung von Hattušiliš zugunsten eines besser kontrollierbaren Ortes „am Meeres(ufer)“ (Apologie Hattušiliš IV 36) später verlassen. Der genaue Zeitpunkt der Zwangsumsiedlung ist unbekannt. Er kann lediglich durch den Hinweis Hattušiliš eingekreist werden, wonach der Beschluss zur Verlegung Urḫi-Tešup aus Angst vor einer politischen Kontaktaufnahme seines abgesetzten Kontrahenten mit Babylon getroffen worden sei.

„Wenn er einen anderen Anschlag verübt hätte, wäre er nach dem Lande Kardunija(š) entkommen. Wie ich nun diese Angelegenheit hörte, ergriff ich ihn und schickte ihn am Meeres(ufer) hinab.“⁶

Die Zwangsumsiedlung dürfte daher entweder vor der politischen Annäherung zwischen Kadašman-Turgu und Hattušiliš erfolgt sein oder erst nach dem Tod des babylonischen Partners, als sich die Beziehungen Hattis zu Babylon wieder verschlechtert hatten. Jeder dieser beiden Zeitpunkte bietet zugleich Vorteile wie Nachteile für die Deutung der Ereignisse.

Ich glaube allerdings, dass man die bisher einhellig befürwortete frühe Umsiedlung und Flucht Urḫi-Tešups während der Regierungszeit von Kadašman-Turgu aufgeben sollte.⁷ Die gesamte Beweisführung in diese Richtung hängt von der korrekten Ergänzung des Textes KBo I 10+ ab, denn alle 13 Briefe der ägyptisch-hethitischen Korrespondenz, die Urḫi-Tešups Flucht behandeln, sind in Wirklichkeit in die Zeit nach dem Abschluss

⁵ Astour, 1963.

⁶ Otten, 1981, IV 33-IV 36.

⁷ Die gemeinhin angenommene Zwangsumsiedlung und Flucht Urḫi-Tešups während der Regierungszeit Kadašman-Turgus bedingt eine beträchtliche zeitliche Ausdehnung seines Versteckspiels mit Hattušiliš. Da Urḫi-Tešup erst kurz vor der Eheschließung Ramses II. mit der Tochter Hattušiliš in Syrien wieder auftaucht, müsste sich dieser fast zwei Jahrzehnte versteckt gehalten haben. Das ist nur schwer vorstellbar. KBo 1.10 + KUB III 72 betont lediglich das vorbildliche Verbündetenverhalten Kadašman-Turgus und nennt keine vorausgegangene politische Spannungen.

In KBo I 10 wird hingegen die babylonische Feindseligkeit gegenüber Hatti während der Zeit Kadašman-Enlils ausdrücklich festgehalten. Diese böte sicherlich einen anderen denkbaren politischen Hintergrund für die Zwangsumsiedlung Urḫi-Tešups „an die Meeresküste“. Daraus würde sich eine Kürzung der Urḫi-Tešup-Affäre auf ein realistisches zeitliches Maß ergeben.

des Friedensvertrags anzusetzen.⁸ Sollte dennoch das Urḫi-Tešup Problem jedoch bereits vor Abschluss des Friedensvertrages entstanden sein, bliebe erklärungsbedürftig, warum der Vertrag keine Klausel über die zwingende Auslieferung seines Widersachers enthielt.

Die daher problematische Annahme eines frühen Beginns, zur Regierungszeit Kadašman-Turgus, der Urḫi-Tešup Affäre hängt ausschließlich von der Rekonstruktion einer Textstelle, KBo I 10 66-72, die sich offenbar auf Kadašman-Turgu bezieht als Parallele zu demjenigen erhaltenen Textteil, welcher sich auf seinen Nachfolger Kadašman-Enlil bezieht.

Man könnte jedoch alternativ die Erwähnung Kadašman-Turgus im Zusammenhang mit einem (vermuteten) Aufenthalt Urḫi-Tešups in Ägypten als Rhetorik Übung Ḫattušiliš betrachten, die lediglich hypothetisch vorführt, wie sich Kadašman-Turgu an Stelle seines Nachfolgers verhalten hätte, wäre es stattdessen zu seiner Zeit dazu gekommen. Man kann für KBo I 10 66-72 als kontrafaktische Konditionalbildung sinnvoll ergänzen:

„(66) ... *Mein Feind, der ins Ausland* (67) *[geflohen war, der] war zum König von Ägypten gegangen. Als ich ihm schrieb, (68) [folgendermaßen: „Meinen Feind lass mir bringen!“]* da ließ er mir meinen Feind nicht bringen. (69) *[Und wegen dieser (Sache)] zürnten [ich und der König von Ägypte]n miteinander. (70) [Hätte ich] an deinen Vater [folgendermaßen geschrieben: „Der König von Ägypte]n kommt meinem Feind zu Hilfe!“ (71) [Da hätte dein Vater den Boten des Königs von] Ägypten ferngehalten. Als aber du, mein Bruder, (72) [König wurdest,] da hast du [deinen Boten zum König von Ä]gypten geschickt...“*

Über seinen Fluchtort sind wir auf die Mutmaßungen der Hethiter angewiesen. Diese dürften allerdings schwerwiegende Gründe gehabt haben sein Versteck in Ägypten bei Ramses II. zu vermuten, der allerdings stets etwas vom Aufenthalt Urḫi-Tešups zu wissen leugnete.

Die Untersuchungen von Edel und Helck zeigen, dass nach Abschluss des Friedensvertrages mit Ägypten (von welchem Zeitpunkt an auch die ersten Erwähnungen der Urḫi-Tešup Affäre in der ägyptisch-hethitischen Korrespondenz beginnen) politische Spannungen zwischen beiden Länder wegen Zulapa entstanden waren.⁹ Auf dem Höhepunkt dieser Zulapa-Affäre, welcher zugleich wohl der Höhepunkt der Urḫi-Tešup Affäre gewesen ist, tauchte dann Urḫi-Tešup plötzlich in Syrien wieder auf. Man darf

⁸ Von den 13 Briefen dieser Korrespondenz mit Ägypten, welche das Urḫi-Tešup Thema behandeln, hat Edel zunächst drei in die Zeit vor Abschluss des Vertrags angesetzt. Bereits vor Drucklegung seines Buches hat Edel selbst erhebliche Zweifel daran geäußert, dass NBC 3934 vor dem Vertrag geschrieben worden sein konnte, da in 21'-23' der Vertrag eindeutig als bestehend erwähnt wird. Da KUB III 22+ inhaltlich mit NBC 3934 verwandt ist (Ḫattušiliš III. fühle sich wie ein „Diener“ durch Ramses behandelt) sah Edel auch den Status von KUB III 22+ wackeln. Der letzte Text (KUB III 36), den Edel in seinem Kommentar in die Zeit vor Vertragsabschluss datierte, wurde in seiner eigenen Übersetzung dahingehend ergänzt, dass er in Rs. 10' „*[Ich habe den Eid] ergriffen [(und) ich werde (ihn) nicht auflösen]*“ lautet. Da dies nur auf den Friedensvertrag hinweisen könnte, lautet die Schlussfolgerung, dass der fliehende Urḫi-Tešup vor dem Friedensschluss nie zum Thema der Korrespondenz mit Ägypten geworden ist. Das wäre mehr als merkwürdig, wenn man die Aussage zu Kadašman-Turgu als Tatsache ansehen will.

⁹ Diese Ansicht wird auch von Houwink ten Cate, 2006a, 3, vertreten.

davon ausgehen, dass dies vor dem Besuch Ḫattušiliš III. in Ägypten anlässlich der ersten Eheschließung Ramses mit einer hethitischen Prinzessin geschieht, wonach es um Urḫi-Tešup wieder still wird.

Sämtliche Aussagen, die sich über Urḫi-Tešup oder den König von Zulapa in der Korrespondenz mit Ägypten finden, sind austauschbar. So zum Beispiel die Textstelle, in der Ramses in seinem Brief an Kupanta-Kurunta von Mira (KBo I 24 + KUB III 23 + KUB III 84) die Vorwürfe Ḫattušiliš III. zitiert:

„(12) Des weiteren, siehe, in der Angelegenheit von Urḫi-Tešup, in der D[u geschrieben hast], (13) hat der Großkönig, der König von Ḫatti, gehandelt gemäß [...] (14) Dennoch, schreibt er mir ständig von ihm wie folgt: (15) „[Lass] den Großkönig, den König von Ägypten, seine Truppen mit ihm erschöpfen (unsichere Übersetzung des Ausdrucks) und lasse ihn ihm [...], (16) und lass ihn ihm sein Gold und lass ihn ihm sein Silber, (17) und l[ass ihn ihm geben] seine Pferde, und lass ihn ihm geben sein Kupfer und soll er ihn doch machen [...], (18) und soll er doch nehmen Urḫi-Tešup...]“.

Dies lautet nach Ḫattušiliš III. eigener Aussage in KUB III.56¹⁰ wie folgt:

„(x+1) Und Meine Sonne ... sagte/schrieb: “(2’) [Über] die Angelegenheit des Königs von Zul[apa ...] (3’) ... so hörte ich (es).... (4’) Der König von Ägypten Silber und G[old(5’)[Und] etwas für den König von Zulapa (hat) er [? (6’) ... wird er anflehen. (7’) Diese Angelegenheit erfrag und (8’) sende [mir N]achricht. (9’) Bezüglich dessen, was du mir geschrieben hast: “Den Feind Meiner Sonne, [meines] H[errn,] (10’) kenne ich nicht”.

Offensichtlich sind in der ägyptisch-hethitischen Korrespondenz, überall wo eine Vergleichsmöglichkeit gegeben ist, die Subjekte Zulapa/Urḫi-Tešup vollkommen austauschbar. Nicht nur, dass die Themen Urḫi-Tešup/Zulapa direkt aufeinander folgen, wie in KUB 26.89; vielmehr zitiert aber Ramses II. Aussagen Ḫattušiliš III. über den König von Zulapa (Eigenzitat des Ḫattušiliš in KUB 26.89) und setzt an dessen Stelle Urḫi-Tešup ein. Ein Wechsel zwischen diesen beiden Themen existiert offenbar nur für den modernen Leser, der nicht weiß, dass beide ein und dieselbe Person sind. Es kann sich angesichts der Bedeutung, die diesen Problemen beigemessen wird, kaum um einen Fehler der Korrespondenz handeln. Glücklicherweise gibt es auch keine Lücken in beiden Texten, die eine Änderung der Übersetzung erlaubten.

Den nächsten Hinweis zur Lösung der Urḫi-Tešup- bzw. Zulapa-Affäre bietet der bekannte Brief Puduḫepas an Ramses II. (KUB XXI.38; Edels Brief Nr. 105), welcher die Ehevorbereitungen betrifft. Möglicherweise beabsichtigt dieser Brief Puduḫepas zunächst den Pharao diskret darauf hinzuweisen, dass die Eheschließung auf die der Pharao drängt, nicht vor einer Lösung der Urḫi-Tešup bzw. Zulapa-Affären stattfinden kann.

Unmittelbar auf die bekannte Provokation Puduḫepas KUB XXI.38 Vs. 11’-12’: „Da [Urḫi-Teš]up dort ist, (12’) so frage ihn, ob es sich so verhält oder nicht!“ folgt die

¹⁰ Hagenbuchner, 1989, Brief Nr. 267.

bemerkenswerte Stelle KUB XXI. 38 Vs. 12'-14' (Wiederholung des Themas in KUB XXXI 36):

„(12') Die Tochter des Himmels un[d] der Erde, die ich aber [meinem] Bruder (13') geben werde, wem soll ich sie gleichstellen? „Soll ich (sie) der Tochter des Landes Babylon, [des Landes] Zulabi (oder) des Landes Assur gleichstellen?“ (14') Mit jenen vermag ich sie keineswegs in Verbindung zu bringen, denn sie [steht(?)] haushoch darüber.“

Auch andere Texte bestätigen die Existenz einer königlichen Gemahlin Ramses II. aus Zulapa/Zulabi. Dieser Text zeigt allerdings, dass eine Tochter des Landes Zulabi als durchaus ebenbürtig mit einer großköniglichen Tochter aus Babylon oder Assur unter Umständen hätte betrachtet werden können. Nun ist es erstaunlich anzunehmen, dass im winzigen Niya und der unmittelbaren Umgebung (Zulapa/Zulabi) zwei Könige gleichzeitig einen Großkönigsstatus hätten beanspruchen können. Man muss gar keinen konkreten Beweis anführen, dass Zulapa nie der Sitz eines dort agierenden Großkönigs gewesen sein kann. Der Ort taucht in keinen Verträgen der entsprechenden Zeit auf, er nimmt auf keiner Weise am diplomatischen Geschehen teil, und es gibt im Grunde auch keine Nische zwischen Ägypten und Ḫatti, wo im 13. Jahrhundert ein solches Reich hätte entstehen können. Dafür waren die Grenzen zwischen den Großreichen in der Region bereits lückenlos abgesteckt.

Als einzige Alternative bleibt, den König von Zulapa mit dem Ex-Großkönig Urḫi-Tešup gleichzusetzen. Daraus folgt, dass eine dynastische Ehe zwischen Ramses II. und einer Tochter Urḫi-Tešups (wenn dieser der König von Zulapa gewesen sein sollte) vor dessen Absetzung geschlossen worden sein muss. Die Existenz einer solchen Ehe kann möglicherweise erklären die noch bestehende Anhängerschaft Urḫi-Tešups im hethitischen Reich und wo diese Anhängerschaft dafür politischen Rückhalt zu finden glaubte.

Elmar Edel nahm wohl fälschlicherweise an, dass die Anhängerschaft, die ihm Unterschlupf gewährte und Ḫattušiliš III. trotzte, es tat, weil Urḫi-Tešup „Schwiegersohn eines Königs“ sei. Seine Rekonstruktion der diesbezüglichen Briefe muß nun korrigiert werden und kann hier in Grundzügen beibehalten werden. Der im Brief gemeinte Schwiegersohn eines Königs war möglicherweise nicht Urḫi-Tešup, sondern Ramses II. selbst, als Schwiegersohn Urḫi-Tešups. Diese Sinnumdeutung ist anhand des einzig vollständig erhaltenen Textbelegs möglich: „*Unser [Herr] ist er; eine Königstochter ist bei ihm als seine Gemahlin*“.¹¹ Die angesprochene männliche Person wäre also der Pharao und nicht Urḫi-Tešup.

¹¹ Edel, 1994, Brief Nr. 24 (KBo I 15 +19 (+) 22) Rs. 35-39, die einzige vollständig erhaltene Stelle, die über irgendein Verwandtschaftsverhältnis Urḫi-Tešups eindeutig Auskunft gibt. Ist aber die Königstochter irgendeines ungenannten Großkönigs bei Urḫi-Tešup oder die Tochter Urḫi-Tešups bei dem Großkönig? Beide Deutungen sind anhand der Textstelle möglich, allerdings bleibt unersichtlich, was für ein Schutzstatus ihm die erste Version verliehen hätte und warum dieser Schutzstatus für Ramses einleuchtend gewesen sein soll, falls dies keine Anspielung auf eine schon bestehende Verwandtschaftsbeziehung zwischen Ramses II und Urḫi-Tešup enthalten sollte. Brief Nr. 25 (KUB III 30 (+) III 31) Rs. 5'-12' ist eine Textwiederholung, die allerdings noch stärker als die zuvor genannte ergänzt werden muss. Dasselbe gilt auch für KUB III 62 Vs. 17-25 (stark ergänzt als Edels Brief 29).

Urḫi-Tešups Anhänger rechneten also trotz des bestehenden Vertrages mit Ḫattušiliš III. mit einer Intervention Ramses II., sollte seinem Schwiegervater, Urḫi-Tešup, etwas passieren. Solche politische Gedanken dürften durchaus realistisch gewesen sein, solange zwischen Ḫattušiliš III. und Ramses II. keine vergleichbaren Heiratsbände existierten.

Diesem Problem konnte Ḫattušiliš III. nur mit Abschluss einer erneuten dynastischen Ehe mit Ägypten begegnen, die ihn gleichfalls zum Schwiegervater des Pharaos gemacht hätte. Sämtliche politische Handlungsmuster weisen in die Richtung von Ramses II. als den gemeinten Schwiegersohn von Urḫi-Tešup.

In diesem Zusammenhang ist es ohne Bedeutung zu klären, ob sich Urḫi-Tešup tatsächlich oder nicht in Ägypten aufgehalten hat. Am Ende wussten es die Hethiter auch nicht besser als wir und konnten sich deswegen Urḫi-Tešups mangels eines Hochverrats nicht entledigen. So ist auch die mürrische Antwort Ḫattušiliš III. (KUB III 56) auf die Garantieforderungen des Urḫi-Tešup zu verstehen. Urḫi-Tešup musste um sein Leben fürchten, falls ihm nun sein Verschwinden als Vertragsbruch ausgelegt werden konnte.¹²

„(2') Und ich habe dir dieses Wort hinsichtlich des Lehens geschrieben. (3') Ob das Wort ein Befehl ist, oder ob es kein Befehl ist, (4') mögest du zu Hilfe(?) kommen. (5') Wegen der Angelegenheit von Ägypten sei beruhigt. (6') Bis der König von Ägypten vor meiner Sonne (7') ankommen wird, nicht früher, (8') werde ich dich vernichten.“

Ein vorausgegangener erster Brief Urḫi-Tešups, von Bentešina an Ḫattušiliš III. übermittelt, scheint Tattamaru, der Hauptmann der Leibwache, der den Brief an Ḫattušiliš III. hätte weiterreichen sollen, aus Zorn vernichtet zu haben (KUB VIII 79, KUB XXVI 92). Der Inhalt seines Briefes ist in KUB VIII 79, KUB XXVI 92 resümiert¹³, sodass man den Zusammenhang beider Dokumente erkennen kann.

„(20'/5') Jetzt hat er in Bezug auf diese Angelegenheit der Städte (und) die Angelegenheit des Tributes der Stadt Niya ge[schrieben. Folgendermaßen er:] (21'/6') „Die Angelegenheit des Tötens wird aber nicht (abge)wendet. Sie werden mich trotzdem töten. (22'/7') Sie werden mich nicht in Frieden lassen. Deshalb ist jener andere Eid...“

Es ist ziemlich sicher, dass trotz der ersten barschen Antwort Ḫattušiliš Urḫi-Tešup Sicherheiten gewährt wurden. Zum Einen stellen wir fest, dass er sich während der Regierungszeit Tudḫaliaš IV., um etwa 1220, noch am Leben befand¹⁴, und zum Anderen wird in KUB XXI 39 das Kommen des Königs von Zulapa (um wohl wieder persönlich bei Ḫattušiliš I. vorstellig zu werden) anscheinend dokumentiert.¹⁵

„(Vs. 8') [...] sagtest du: „Der König des Landes Zula[pa] (Vs. 9') [...] kommt er. Bentešina mir [...] (Vs. 10') [...] folgen]des sagten sie: “Die Angelegenheit des Königs von Ägypten [...] (Vs. 11') [...] werden sie [...]. „Wer die Truppen und Pfer[de] (Vs. 12') [...] aussendet, er im Land Nifya]...“

¹² Hagenbuchner, 1989, Brief Nr. 267.

¹³ Hagenbuchner, 1989, Brief Nr. 304.

¹⁴ van den Hout, 1998, 37 und 82; Houwink ten Cate, 1994, 250-251.

¹⁵ Hagenbuchner, 1989, Brief Nr. 328.

Zwei Dokumente aus Ugarit, die an späterer Stelle angesprochen werden, scheinen zum Einen das Überleben Urḫi-Tešups bis spät in die Regierungszeit Tudḫaliaš IV., zu bestätigen und zu bezeugen, dass er zu diesem späten Zeitpunkt wieder kurzfristig politische Bedeutungen wiedererlangen konnte.

DAS ENDE URḪI-TEŠUPS

Laut RS 34.165 (Briefschreiber Tukulti-Ninurta I. oder Salmanassar I.?) stehen sich die verfeindeten hethitischen und assyrischen Armeen vor der Schlacht bei Nihriya einander gegenüber, und der hethitische König versucht den Assyrer zu beschwichtigen. Dies ist der Brief Tudḫaliaš IV. im Zitat des assyrischen Königs:

„(Rs. 38) Warum sollten wir, die wir Brüder sind, miteinander (Rs. 39) verfeindet sein? Denn: [warum] sollten ein Löwe und [...] (Rs. 40) töten?! Dann würde der Feind [...] (Rs. 41) heftig lachen (und feststellen): Der eine [...] (Rs. 42) Ich habe aber selbst Ersatz geschaffen. Denn [...] (Rs. 43) sind wir. Aus ...[...] (Rs. 44) Der Leichnam des Königs von Zula[pa] (Rs. 45) ich aber werde mit [...]“

Mit dem Versprechen, wohl die Leiche des Königs von Zulapa (KUR Zu-l[a-pa]) feierlich beizusetzen, wohl eine Wiedergutmachungsgeste gedacht zu beschwichtigen, schließt der letzte Brief Tudḫaliaš IV. an den assyrischen König vor der Nihriya-Schlacht ab.

Zulapa befand sich außerhalb der Reichweite der Assyrer, die vor Nihriya lagerten und auch nicht auf deren Marschweg dahin. Damit scheiden die Assyrer als diejenigen aus, welche Urḫi-Tešup auf dem Gewissen hätten haben können. Offenbar schien Tudḫaliaš IV. eine Verantwortung an Letzteren Tod zu tragen, weswegen die Beisetzung des Königs von Zulapa in die gleiche Kategorie Wiedergutmachung fallen konnte, wie der vorausgegangene Satz, der vom Ersatz schaffen seitens Tudḫaliaš IV. spricht, hindeutet.

KBo 18.48 Rs., Brief des Grosskönigs an den Prinzen Ḫišni von Karkemisch, liefert möglicherweise ergänzende Hinweise zu diesem Geschehen. Houwink ten Cate¹⁶ möchte diesen Text kurz nach der hethitischen Niederlage von Nihriya datieren. Die Datierung wird hier, wenn auch mit einer geringen zeitlichen Verschiebung vor die Schlacht von Nihriya, weiter verfolgt. In dem Nihriya-Brief ist der Abfall des Königs von Išuwa von Tudḫaliaš IV. bereits eingetreten, hier wird hingegen der Abfall des „Hurriters“, in dem ich den König von Išuwa erkenne, vorerst nur befürchtet.¹⁷

KBo 18.48 Rs.: *„(0) Wenn er uns auf unseren Feldzug begleitet hätte, (1') hätte er uns verlassen! [...] (2') Und Erfolg, Erfolg! Das Land Akkad hat ihn [legal anerkannt,] (3') und das ist sehr gut so! Wäre ich [ihm] ein Feind gewesen, (dann) hätte (4') ich, „Meine Majestät“, damit eine gesetzliche Handhabe gegen ihn; ich hätte damit [Er]folg. (5') Er (der Feind?) wäre uns irgendwie ausgeliefert(?). (6') Und aufgrund dieser*

¹⁶ Houwink ten Cate, 2006b, 113-114.

¹⁷ Dietrich, 2003-2004, 113: *„(Rs. 13) Warum bist Du an Ehli-šarri, (Rs. 14) meinen vereidigten Vasall, herangetreten und hast ihn in die Pflicht genommen?“*

[Tatsache] sollte ich zu ihm gehen nach ... (Ortsname?). (7') Was der Feind ihm (dem König von Akkad?) in unserer Angelegenheit schrieb: "Der Kö[nig des Landes Karkemiš] (8') wird auf keinen Fall einen Aufstand für deinen Feind provozieren." (9') Derjenige, der ein Ohr bei ihm h[at]¹⁸ (10') (berichtete es:) „Das Wort des Königs von Kar[kemiš] wird keinen Aufstand provozieren.“¹⁹ (11') Dies wi[rd bekannt] irgendwie dem Hurriter (?). (12') Wir sollten uns (also) zurückziehen. Jedoch jetzt so in der Art wie ich, „Meine Majestät“ diese Angelegenheit(, die ihn betrifft,) ignorieren werde, (13') so [muss] auch der König von Karkemiš seinerseits sie ignorieren.“

Wegen der zeitlichen Nähe der beiden Dokumente RS 34.165 und KBo 18.48 Rs. ist meiner Meinung nach die plausibelste Identifikation des Gegenkönigs im letzten Text Urḫi-Tešup.

Die gelegentliche Nennung eines Königs der Hurriter in zeitgenössischen Texten hat bekanntlich auch einiges Kopfzerbrechen verursacht. Aus dem Brief Nr. 8 von Tall Šēḫ Ḥamad geht ziemlich eindeutig die Herkunft der hurritischen Krieger (*šu-ub-ri-ú*)²⁰ aus dem angrenzenden Išuwa (und vielleicht auch aus Kumāḫu)²¹, die laut diesem Text Nihriya bedrohen. Diese Deutung würde ein weiteres Streitthema schlichten, nämlich die Identität des Königs der Hurriter, der mit seinen Truppen Emar zur Zeit Tudḫaliaš IV. belagert habe.²² Der Frontenwechsel des Königs von Išuwa zwischen Ḥatti und Assur vor der Nihriya-Schlacht könnte gut eine Belagerung des zum hethitischen Gebiet gehörenden Emar durch hurritische Truppen zu diesem Zeitpunkt erklären. Sie wäre sehr gut in diesem Zusammenhang als Befreiungsversuch Urḫi-Tešups zu deuten. Emar kontrollierte den einzigen direkten Weg von Osten über den Euphrat nach Nija beziehungsweise nach Zulapa. Es ist wohl wahr, dass für eine längere Zeit hindurch, als ein unabhängiges Hanigalbat gleichzeitig neben einem hethitischen Gebiet namens Išuwa bestanden hatte, diese Bezeichnung, Hurri, für ersteres Königreich reserviert war. Nichtsdestoweniger ist die im Brief beschriebene Situation mit einer Identifikation des „Hurriters“ mit dem König von Hanigalbat nicht in Einklang zu bringen, zumal es zur Zeit Tudḫaliaš IV. in Hanigalbat keine Könige mehr herrschten sondern nur assyrische Statthalter. Der Hurriter in KBo 18.48 Rs scheint jedoch ein hethitischer Untertan zu sein. Sein Benehmen steht offensichtlich in Zusammenhang mit der mangelnden Autorität des Königs von Karkemiš, der nicht fähig sei sich zugunsten Tudḫaliaš IV. einzusetzen und somit das Ausweiten des Aufstandes zu verhindern.

Auch der Text KBo. VIII 23 diskutiert von Itamar Singer²³ setzt den Abfall Eḫli-šarris vor der Nihriya-Schlacht in den Rahmen einer unspezifizierten größeren Rebellion

¹⁸ Text an dieser Stelle: „b[eu]g)t“. Ich setze hier stattdessen „hat“ ein, weil dieses Verb unserer Ausdrucksweise näherkommt.

¹⁹ Vermutlich sinngemäß eher als „Der König von Karkemiš wird sich da heraushalten“ zu verstehen.

²⁰ Cancik-Kirschbaum, 1996, Brief Nr. 8:54' ff.

²¹ Cancik-Kirschbaum, 1996, Brief Nr. 8:60' ff.

²² Astour, 1996, 25-56, dessen Versuch in den König der Hurri einen assyrischen Statthalter in der Region zu erkennen wenig Zustimmung gefunden hat; und Adamthwaite, 2001, 261-280.

²³ Singer, 1985, 117.

gegen die Autorität des Grosskönigs: „(9') Jedoch [j]etzt, als der König von Išuwa (10') hier ankam, sie drehten ihn (11') zu/von sich (12') [und?] er ist ebenfalls verloren in Rebellion. (13') [Der Köni]g von Išuwa (14') folgt nicht länger seiner Majestät.“

Einen erklärenden Grund für das Verhalten Ehli-šarris liefert Houwink ten Cate²⁴, der aufgrund der Zeile 10 f. von KUB XXI 40 glaubt, auf ein Verwandtschaftsverhältnis zwischen Urhi-Tešup und dem König von Išuwa (der eine Tochter Urhi-Tešups geheiratet haben soll) schließen zu können. Dieses Verwandtschaftsverhältnis mit dem König von Išuwa würde schlüssig die in KBo 18.48 Rs. geäußerte Befürchtung Tudḫaliaš IV erklären. Urhi-Tešup dürfte noch vor Kurunta berechtigt gewesen sein als Großkönig gegen Tudḫaliaš IV anerkannt zu werden und wurde dementsprechend von Ḫattušiliš III. und seinem Nachfolger bis an den Rand der permanenten Staatskrise befürchtet.

Für die Identifizierung des Königs von Akkad in diesem Brief, KBo 18.48 Rs, stehen mehrere Optionen zur Wahl, abhängig von der noch umstrittenen Datierung der Nihriya Schlacht. Dieser kann entweder ein kassitischer König von Babylon sein, oder, falls die Ereignisse rund um die Nihriya Schlacht überraschenderweise spät in die Periode des assyrischen Interregnums in Babylon datiert würden, Tukulti-Ninurta I. Damals führte Tukulti-Ninurta I. in den stolzen eigenen Inschriften tatsächlich den Titel eines Königs von Akkad²⁵. Diese Identifikation des Königs von Akkad in KBo 18.48 Rs ist inzwischen besser mit der Auswertung der Briefe aus dem Dūr-Katlimmu Archiv und mit der neulich rekonstruierten assyrischen Eponymenreihe von Dūr-Katlimmu in Einklang zu bringen. Bereits E. Cancik-Kirschbaum glaubte in der Korrespondenz von Dūr-Katlimmu eine Beschreibung der Umstände der Schlacht von Nihriya lesen zu können.²⁶ Die Zerstörung von Dūr-Katlimmu (die Periode, in der die von Cancik-Kirschbaum beobachteten Texte entstanden, denn Ina-Aššur-šumi-išbat in dessen Eponymat die Texte gehören der letzte in Dūr-Katlimmu bezeugte Eponym ist) erfolgte, wie man mittlerweile jedoch weiß, in einem Jahr, das dem Ende einer Reihe von mindestens 22 Eponymen des Tukulti-Ninurta I. entspricht²⁷, das heißt etwa in dem Jahr, als Babylon für Tukulti-Ninurta I. wieder verloren ging. 6-7 Jahre früher verzeichnen dieselben Archive ebenfalls bedeutende krieglerische Tätigkeiten in der Region – eine Zeitspanne entsprechend dem assyrischen

²⁴ Houwink ten Cate, 1974, 150.

²⁵ Grayson, 1972, §713, §782.

²⁶ Cancik-Kirschbaum, 1996.

²⁷ Laut Freydank, 2005. Allerdings gilt die Warnung Freydanks, dass sich die Liste durchaus vergrößern könnte aufgrund der zufälligen Überlieferungsart der Eponymen-Namen in den Archiven (Röllig, 2004 und Freydank, 2005). Bei einer Akzession Tukulti-Ninurtas gemäß der mittleren Chronologie 1244, wäre die Eroberung Babylons in das Eponymat von Aššur-bēl-ilāni, Tukulti-Ninurtas 14. tatsächliche Regierungsjahr sollte man das Eponym Tukulti-Ninurta mit dessen Akzessionsjahr gleichsetzen, also etwa 1230 anzusetzen. Der Tod Urhi-Tešups und der Verlust Babylons wiederum laut Chronik P 7 Jahre später 1223. Das Datum wäre nach der kurzen Chronologie dann entsprechend anzupassen.

Die Eroberung Babylons kann daher anhand der Eponymenlisten ins 14. Regierungsjahr Tukulti-Ninurtas I. angesetzt werden. Dieses Datum würde leicht von der Schätzung Brinkmans, 1976, 31 abweichen, errechnet anhand der Königslisten (18. Jahr). Dafür würde es eng bei der Schätzung von J. Boese, 1982, (12.-15. Jahr) liegen, welches er anhand des Abstandsdatums der Chronik P erreicht hat, als [80]+6 ergänzt. Alle Berechnungen müssen betreffs der Anzahl der Eponymen einen Unsicherheitsfaktor berücksichtigen. Das eine oder andere zufällig nicht überlieferte Eponym dieser Periode könnte noch eingefügt werden müssen.

Interregnum in Babylon.²⁸ Der Brief KBo 18.48 Rs. beschreibt eindeutig Tudḫaliaš IV. als Feind des Königs von Akkad. Über eine Feindschaft zwischen Tudḫaliaš IV. und Akkad/Babylon ist nichts bekannt, dafür umso besser über dessen Feindschaft zu Assur.

Dieses würde allerdings eine Spätdatierung der Nihriya-Schlacht voraussetzen, welche bisher von beinahe sämtlichen Historiker gemieden wurde.

Die Untersuchung des CTH 569 durch van den Hout und Houwink ten Cate zeigt tatsächlich²⁹ dass Urḫi-Tešup bis in die späte Regierungszeit Tudḫaliaš IV., etwa um 1220, noch lebte. Die Ergebnisse dieser Untersuchung von van den Hout und Houwink ten Cate sind daher wesentlich für die Datierung der Nihriya-Schlacht, da sie das bisher letzte gesicherte Erwähnung Urḫi-Tešups, gestorben kurz vor diesem historischen Ereignis, darstellen. Ebenso späte Erwähnungen eines Urḫi-Tešups³⁰ in Ugarit, RS 88.2009 und KTU 2.68, können nicht mit letzter Gewissheit bloß aus dem Kontext der Briefe heraus unseren Urḫi-Tešup zugewiesen werden.

Könnte die Anerkennung Urḫi-Tešups als Grosskönig eine Antwort des assyrischen Königs auf diese Bedrohung durch den vermutlich laut KBo 18.48 Rs gerade in Mesopotamien kriegführenden Tudḫaliaš IV gewesen sein? Schwer zu sagen. Eine gründliche Untersuchung dieses bedeutenden Details würde allerdings sowohl den Rahmen des Artikels sprengen, als auch neue Schwerpunkte der Fragestellung voraussetzen. Aus diesem Grunde wird auf beide bestehenden Möglichkeiten der Lösung des Problems der Erwähnung eines Königs von Akkad hingewiesen.

Aufgrund der vorliegenden Untersuchung ergibt sich folgende Rekonstruktion der Verbannungszeit Urḫi-Tešups in Zulapa bei Nuḫašše/Niya:

Versuchte Zwangsumsiedlung Urḫi-Tešups von Zulapa an das „Meeresufer“ und seine anschließende Flucht. Diese Ereignisse sind am wahrscheinlichsten in der Regierungszeit Kadašman-Enlils, ein paar Jahre vor dem Abschluss des hethitisch-ägyptischen Ehevertrags mit Ramses II., der im 34-sten Jahr von Ramses II. erfolgte,

²⁸ Erster Konflikt bezeugt in Dür-Katlimmu im Eponymat des *Ušur-namkūr-šarre*: „nur beiläufig erfahren wir von ‚Feinden‘, deren Einfall z.B. im Eponymatsjahr des *Ušur-namkūr-šarre* die Feldbestellung vollständig verhinderte...“. Dieser Konflikt verlängert sich auch ins nächste Jahr, ins Eponymat des *Aššur-bēl-ilāni*, Röhlig, 2008, XXXIII. Diese Situation erinnert an die Beschreibung des Tukulti-Ninurta-Epos, wonach sich der assyrische König erst mal vor Kaštiliaš fliehen – erst in einem zweiten Feldzug (wohl nächstes Jahr) kann er den kassitischen König mit Erfolg herausfordern. Der zweite in Dür-Katlimmu sonst bezeugte militärische Konflikt, der die Region belastet, datiert ins Eponymat des *Ina-Aššur-šumi-išbat*. Zwischen *Ina-Aššur-šumi-išbat* und *Aššur-bēl-ilāni* liegen die Eponymen: *Aššur-zēra-iddina*, *Abī-ilī* (Sohn des Katiri), *Šulmānu-šuma-ušur* und *Enlil-nādin-apli* (?). Der in Dür-Katlimmu nicht bezeugte Ninu’aju scheint sein Eponymat laut Freydank, 2005, 51-52 in der Nähe des Abī-ilī (Sohn des Katiri) ausgeübt haben, ohne genau eingeordnet werden zu können, was den Interval zwischen *Aššur-bēl-ilāni* und *Aššur-šumi-išbat* auf die überlieferten 7 Eponymenjahre verlängern würde. Ebenso könnte *Ber-išmanni* an diese Stelle gehören, den Röhlig, 2008, 4, unter Fragezeichen hinter *Ina-Aššur-šumi-išbat* eingefügt hatte.

²⁹ van den Hout, 1998, 37: „The second stage in the inquiry was therefore conducted after Eḫlišarruma had succeeded Arišarruma as king in Išuwa. If the later text is indeed to be ascribed to Tudḫaliya IV, this would mean that the last phase of the oracle investigation is to be dated after 1220“; und 82: „Urḫi-Tešub still lived during Tudḫaliya’s reign: in L 6+, part of the second stage of the inquiry to be dated around 1220, he seems to be spoken of as being still alive“; Houwink ten Cate, 1994, 250-251.

³⁰ Singer, 1999, 729 und N. 425; Malbran-Labat, 1995, 39-40.

anzusetzen. Eine schlechtere Alternative ist die angenommene Flucht bereits während der Regierungszeit Kadašman-Turgus.

Urḫi-Tešup versteckt sich im hethitischen Einflussbereich in Nord-Syrien. Die ihn unterstützende Personen in Nord-Syrien versprechen sich viel von einer ägyptischen Intervention. Ihre Haltung begründen sie gegenüber Ramses II. damit, dass man nicht zulassen wolle, dass dem Schwiegervater des Pharaos (Urḫi-Tešup) etwas durch Ḫattušiliš III. zustößt. Währenddessen wird Urḫi-Tešup von Ḫattušiliš III. bereits am ägyptischen Hof vermutet. Ramses wird mit einer möglichen Wiederholung der Ereignisse bei Kadesch gedroht.

Vorbereitung einer ersten ehelichen Allianz zwischen den Königshäusern von Ramses II. und Ḫattušiliš III., welche jegliche Hoffnung auf eine ägyptische Einmischung zugunsten Urḫi-Tešups zunichte machen würde.

Wiederauftauchen Urḫi-Tešups und dessen Rückkehr nach Niya (?). CTH 569 bezeugt, dass er sich bis weit in die Regierungszeit Tudḫaliaš IV. noch am Leben befindet.

Anerkennung Urḫi-Tešups als rechtmäßiger Großkönig durch den König von Akkad (Tukulti-Ninurta I. nach dem Fall Babylons oder ein kassitischer König?) und seine anschließende Ermordung durch Tudḫaliaš IV. am Vorabend der Nihriya Schlacht. Tudḫaliaš IV. versucht u.A. mit dem konziliananten Versprechen einer würdigen Beerdigung Urḫi-Tešups die Schlacht bei Nihriya mit den Assyren (unter Tukulti-Ninurta I. oder Salmanassar I.?) im letzten Augenblick noch zu verhindern.

ADDENDUM: EINE NEUE DEUTUNG VON RS 34.165

Die Attribution des Dokuments RS 34.165 an Salmanassar I.³¹ oder an Tukulti-Ninurta I. und damit das Datum der Nihriya-Schlacht scheint vordergründig davon abzuhängen ob Urḫi-Tešup (der nun in diesem Text identifiziert wurde) tatsächlich bis in die späte Regierungszeit Tudḫaliaš IV., sprich nach ca. 1220 v.Chr. lebte, wie nahegelegt von der Untersuchung des CTH 569 von van den Hout und von Houwink ten Cate³².

Ausgerechnet aus Ugarit scheinen weitere späte Erwähnungen von Urḫi-Tešup zu kommen. Eine davon stammt aus einem Brief³³, ebenfalls aus dem Urtenu Archiv, der Fundort von RS 34.165, an Urtenu, Yabnana, ^dIM.DI.KUD, Danana, den Grossen der Stadt und den Stadtältesten, weswegen die Identifizierung mit dem illustren königlichen Verbannten plausibel erscheint. Der schreibende Urḫi-Tešup scheint eine Person von hoher Autorität zu sein, ohne dass sein persönlicher Status aus dem Brief RS 88.2009 ersichtlich werden könnte. Möglicherweise ist dieser auch mit dem *Urg-Tib* identisch, der Autor eines Höflichkeitsbriefes KTU 2.68 an die ugaritische Königin. Es ist eindeutig,

³¹ So identifiziert von Harrak, 1987, 140-142; Liverani, 1990, 169-171; Dietrich, 2002, 103-141. Für Tukulti-Ninurta I sprechen sich u.A. aus: Lackenbacher, 1982, 141-56; Singer, 1985, 100-102 und 107-109; Freu, 2003, 101-118.

³² van den Hout, 1998, 37 und 82; Houwink ten Cate, 1994, 250-251.

³³ Singer, 1999, 729 und N. 425; Malbran-Labat, 1995, 39-40.

dass die neuen biographischen Daten für Urḫi-Tešup ihn in seinen letzten Jahren als Zeitgenosse von Šarelli, als Regentin von Ugarit nach dem Tode Ibiranus, erscheinen lassen, zu deren Zeiten Urtenu eine besondere Bedeutung erlangt hatte. Wie man feststellen kann, sowohl die ugaritischen Zeugnisse, wie auch die Auswertung des CTH 569 unterstützen sich gegenseitig in der Aussage, dass Urḫi-Tešup ca. 1220 v.Chr. noch lebte.

Die Erwähnung Urḫi-Tešups als (Leiche des) König von Zulapa in RS 34.165 setzt logischerweise für dieses Dokument ein Datum nach Abschluss von CTH 569 und nach Verfassung der Briefe KTU 2.68 und RS 88.2009 voraus. Dieses wahrscheinlichste Datum (1223 bzw. 1213 nach den vorliegenden Schätzungen, die auf der Mittleren bzw. Kurzen Chronologie beruhen) liegt lange nach dem Tod von Salmanassar I. Nach der sogenannten mittleren Chronologie ist die Krönung Tukulti-Ninurtas I. nämlich 1244 v.Chr. anzusetzen. Nach der verkürzten mittellassyrischen Chronologie ist dieses Datum immer noch mit dem Jahre 1234 zu ersetzen. Nach beiden Chronologien muss Salmanassar I. als der Schreiber von RS 34.165 kategorisch ausscheiden. Das Phänomen der scheinbaren Erwähnung seines Namens in der Zeile Vs. 1 bedarf daher einer überzeugenden Erklärung. Meiner Auffassung nach beruht die Ergänzung des Namens Salmanassar I. in RS 34.165 auf eine falsche Wahrnehmung des Briefes.

Meiner Auffassung nach ist RS 34.165 die Mitteltafel eines wesentlich längeren assyrischen Briefes. Diese Möglichkeit ist bisher aufgrund der an dieser Stelle unzweifelhaft erkennbaren Amarna-Formel noch nie in Erwägung gezogen worden. Bisher gab es lediglich den Versuch an dieser Stelle des Briefes noch eine abgebrochene Einleitungszeile zu vermuten. Wenn RS 34.165 nicht als erste Tafel des assyrischen Briefes an den König von Ugarit angesehen werden müsste, dürfte man bezweifeln, dass [...]SAG überhaupt einen Hinweis auf Salmanassar I. darstellen kann, zumal die entsprechende äußerst bruchstückhafte Zeile auch einen komplett anderen Inhalt hätte haben können als die bisher erwartete bloße Einleitung der Amarna-Formel.

Es ist wohl wahr, dass bisher keine Fälle bezeugt sind, in denen eine Amarna-Formel in Zitatform widergegeben worden ist. Das ist verständlich, zumal die Begrüßungsformel im Normalfall nicht bedeutend genug war, in späteren Briefen zitiert zu werden.

Die Zweifel, dass die am Anfang des Bruchstücks identifizierte Amarna-Formel tatsächlich diese Korrespondenz zwischen mutmaßlich Ibiranu oder seinen Nachfolger in Ugarit und dem assyrischen König hätte einleiten können, schürt in erster Linie die dafür unangebrachte Form dieser Amarna-Formel selbst. Diese kann keine Amarna-Formel eines Briefes des assyrischen Großkönigs an Ibiranu oder gleichwelchen anderen ugaritischen König betrachtet werden – da es Letzterem aufgrund der darin angebotenen Anrede „*mein Bruder*“ eine Ranggleichheit mit dem assyrischen König unterstellen würde. Das allerhöchste, was ein assyrischer König seinem ugaritischen Partner hätte anbieten können wäre ein protokollarisch wohlwollendes „*mein Sohn*“. Es ist jedoch unzweifelhaft, dass der Briefempfänger dennoch der ugaritische Herrscher war. Einen Grund für die unerhörte protokollarische Aufwertung Ugarits ist im Brief nicht ersichtlich. Erstaunlicherweise klammert die Analyse von M. Dietrich bewusst oder

unbewusst ausgerechnet diesen wichtigen Aspekt der Amarna-Formel in dem Brief vollkommen aus³⁴.

Die verwendete Anrede legt, gemäß der von Hagenbuchner (THeth 15, 49-55) beobachteten Kriterien der hethitischen und damit auch der damit zeitgenössischen Korrespondenzführung, eine Ranggleichheit zwischen Korrespondenten unausweichlich nahe. Diese liegt aber unter keinen Umständen zwischen einem assyrischen Großkönig, sei es Salmanassar I. oder Tukulti-Ninurta I., und einem König Ugarits vor.

Zur Verdeutlichung der diplomatisch Korrekten Anrede eines Königs von Ugarit innerhalb der Rangfolge des hethitischen Reiches kann man z.B. Bo 2810 zitieren in dem der hethitische Großkönig ihn als „*mein Sohn*“ anredet. Je nach Situation, scheint die Bedeutung des Königs von Ugarit gelegentlich sogar unterhalb derjenigen des Königs von Amurru rangiert zu haben, wie eine gelegentliche Adresse des Königs von Amurru und seines Präfekten an deren „Söhne“, der König von Ugarit und dessen Präfekten, beweist (RS 17.152).

Der Brief RS 23.035 demonstriert z.B., wie wichtig der passende Einsatz der Anrede „*Bruder*“ auch grenzüberschreitend betrachtet wurde. Der Präfekt der Stadt BAD-dU in Babylonien, soll laut RS 23.035 einen gewissen Ili-hamadi festgenommen haben, dessen Oberherr (möglicherweise der König von Emar) sich erlaubt hatte, ihn, den Präfekten von BAD-dU unangemessen als „*Bruder*“ angesprochen zu haben. Ili-hamadi dürfte der unglückselige Überbringer des Briefes gewesen sein. Es ist daher vorstellbar, dass sich ein untergeordneter Herrscher u.U. sich einem größeren, wenn bestimmte Voraussetzungen dazu vorliegen, unter Fehleinschätzung der Verhältnisse, anbieten könnte. Dies wird in der Regel vom höheren Partner aber umgehend korrigiert, wenn nicht gar bestraft, beides ist häufiger schon vorgekommen. Das umgekehrte Angebot der Bruderschaft an einen abhängigen Kleinkönig seitens eines wesentlich höheren Partners ist allerdings noch nie in der Korrespondenz des Nahen Ostens belegt.

Kann man sich vorstellen, dass der assyrische Großkönig gerade nach seinem Sieg über Tudḫaliaš IV. den „Kleinkönig“ von Ugarit als Bruder bezeichnet? Ich denke: nein. Viel sinnvoller ist die Deutung der Zeilen 3-10 als Anrede zwischen zwei Großkönigen, die als Zitat im ugaritischen Brief inseriert ist. Den Hinweis, dass hier tatsächlich bereits kräftig zitiert wird, bringt Zeile die 11 (Übersetzung M.Dietrich: „[...] *hast Du mir geschrieben*“), die gleich auf die Amarna-Formel folgt. Sie ist die typische Redewendung in der akkadischsprachigen Korrespondenz mangels Anführungszeichen eine Zitatstelle anzukündigen oder abzuschließen. Die scheinbar bezuglose Zeile 11 wäre hiermit ebenfalls erklärt. Die Schlussfolgerung aus der Tatsache, dass der Empfänger der Amarna Formel nicht identisch mit dem tatsächlichen Briefempfänger sein kann, sowie aus dem Zitierhinweis in Zeile 11, ist, dass die Amarna-Formel höchstwahrscheinlich ein Zitat innerhalb des Briefes ist und nicht die ursprüngliche einleitende Amarna-Formel des assyrischen Briefes an den Herrscher von Ugarit.

³⁴ Dietrich, 2003-2004, 119-120.

Auf dasselbe drängt auch die darauf folgende Zeile 12: „*Dann hat Tudhulija, der König von Hatti-Land, mir folgendes geschrieben*“. Sie setzt nämlich voraus, dass RS 34.165 vor Zeile 12 auch andere Aussagen Tudhaliā IV. zitiert, oder dass hier ein in dem Brief bereits begonnener Bericht zumindest fortgesetzt wird.

Diese Amarna-Formel kann sich daher nicht auf den ugaritischen König beziehen. Die versuchte Rekonstruktion des Namens des ugaritischen Königs in der Amarna-Formel ergibt sich aus den noch lesbaren Textspuren nicht zwingend. Lackenbacher³⁵ dachte in Ihrer Erstveröffentlichung des Briefes an eine alternative Lesung des beschädigten auf KUR folgenden Zeichen u.A. noch auf ein URU statt sich bloß auf die Lesung ú zu fixieren, wie vorausgesetzt bei einer Ergänzung zum KUR Ugarit. Ebenso wurde von ihr noch erwogen [...]na LUGAL statt ausschließlich zum [Ibira]na LUGAL alternativ zu einem [a]na LUGAL zu ergänzen. Summiert man zusammen die Alternativen Lackenbachers, bekäme man einen zu nichts zwingenden [a]na LUGAL KUR [URU], der den Weg frei machen würde zur Erörterung, wer mit dieser Amarna-Formel statt des ugaritischen Königs mal in Zitatform tatsächlich gemeint gewesen sein dürfte.

Eine Erörterung der Rolle, welche die zitierte Amarna-Formel an dieser Stelle des Briefes spielte, wäre ein Schlüssel zum Verständnis dieser Zeilen. Da ab Zeile 12 der Begründung des „*casus belli*“ aus Sicht des hethitischen Königs Platz gewidmet wird, könnten auch die einleitenden Zeilen ebenfalls darauf bezogen werden und ein Teil des „*casus belli*“ begründet haben.³⁶ KBo 18.48 Rs zählt u.A. auf die Anerkennung eines Gegenkönigs in Hatti und der daraufhin befürchtete Abfall des Hurriters, das heißt des hethitischen Vassalen von *Išuwa*. Da sowohl KBo 18.48 Rs, wie auch das bereits erwähnte KBo. VIII 23 nur kurz vor der Abfassung von RS 34.165 anzusetzen sind, dürfen die darin erwähnten Elemente auch in RS 34.165 die gleiche bedeutende Rolle spielen und eventuell in gleicher Reihenfolge erwähnt werden. Tatsächlich folgt der Amarna-Formel, die eine Anerkennung ihres Adressats als Grosskönig impliziert, in Zeile 12 der Vorwurf Tudhaliā IV. seinen Vassalen von *Išuwa* vereidigt zu haben.

Ob es auch eine etwas deutlichere Anerkennung Urhi-Tešups als Grosskönig durch die Assyrer gegeben hat ist nicht zu belegen. Der Austausch entsprechender Höflichkeiten wie zwischen gleichrangige Großkönige würde sie jedoch ebenso für uns wie für die Hethiter damals beweisen. Diese Deutung der Amarna-Formel liefert eine Erklärung, warum sie in RS 34.165 der Begründung des „*casus belli*“ angegliedert wird. Ebenso ist es bedeutsam, dass in dem später zitierten Versöhnungsbrief Tudhaliā IV. vor Ausbruch der Nihriya-Schlacht ein Angebot bezüglich der Leiche des Königs von Zulapa/Urhi-Tešup im Kontrast dazu eine so prominente Rolle spielt.

³⁵ Lackenbacher, 1982, 149.

³⁶ In KBo 18.48 Rs. kann man lesen, wie Tudhaliā IV von einem bereits begonnenen Feldzug umzukehren gedenkt, die durch die vermutliche Anerkennung Urhi-Tešups entstandene Situation zu lösen: „*Und aufgrund dieser [Tatsache] sollte ich zu ihm nach ... (gehen). ... Dies wi[rd] bekannt[?] irgendwie dem Hurriter (?). Wir sollten uns (also) zurückziehen.*“ Wie die Lösung des durch Anerkennung Urhi-Tešups entstandenen politischen Problems ausgesehen haben mag, können wir anhand der Erwähnung der Leiche des Königs von Zulapa in RS 34.165: „(Rs. 44) *Der Leichnam des Königs von Zul[apa]* (Rs. 45) *ich aber werde mit [...]*“ vermuten.

In diesem Lichte gelesen, könnten die ersten Zeilen von RS 34.165. einen Vorwurf an den assyrischen König enthalten, Urḫi-Tešup anerkannt zu haben, was sich durch die abgefangene Korrespondenz belegen ließe, in der eine kompromittierende Ansprache Tukulti-Ninurtas vorkam. Da Zeile Vs. 2 als [a]na LUGAL KUR [URU] zu ergänzen ist, bietet sich im Grunde nach dem logischen Prinzip von Ockhams Rasiermesser (Ockham's razor) am ehesten eine Identifizierung Urḫi-Tešups an dieser Stelle. Denn Urḫi-Tešup, beziehungsweise der König von Zulapa, wird tatsächlich im Laufe des Briefes erwähnt. Urḫi-Tešup ist zu seinen Lebzeiten auch der naheliegendste Anwärter auf die Bezeichnung „Bruder“ durch einen assyrischen Grosskönig, trotz seines recht bescheidenen realen Status erkennbar in der Bezeichnung LUGAL KUR [URU].

Ibiranus Tod wird von Singer, z.B. auf etwa 1225-1220 gesetzt, was durchaus eine Parallelität zwischen Šarellis Regentschaft und Urḫi-Tešups letzte Jahre nahelegen könnte. Da Ibiranu nicht mehr zwingend als Empfänger von RS 34.165 gesehen werden kann, kommt auch die Königin Šarelli die Empfängerin dieses Briefes in Frage womit die Existenz eines späten mit ihr korrespondierenden Urḫi-Tešup (KTU 2.68, RS 88.2009), erklärt wird. Das dann beobachtbare Revirement Urḫi-Tešups, bezeugt durch diese Briefe, wohl infolge seiner Anerkennung als Grosskönig, kann sich nur knapp nach dem Tod Ibiranus ereignet haben.

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HIRBEMERDON TEPE DURING THE IRON AGE PERIOD: A case study in the Upper Tigris river region*

*Guido Guarducci & Nicola Laneri***

The main purpose of this paper is to analyze the material culture uncovered from the Iron Age levels (ca. 1050-610 BC) at the site of Hirbemerdon Tepe, located along the upper Tigris river in southeastern Turkey. The first part of the paper includes a brief introductory chapter dedicated to the site location and its geographical and environmental context, with a second chapter on the Neo-Assyrian historical sources on the area here considered. The second half of the paper instead comprises a detailed analysis of the architecture and pottery found in Hirbemerdon Tepe's Iron Age levels with a specific focus on the most represented and best preserved phase, the Early Iron Age period (i.e., Phase IVA, ca. 1050-900 BC). Moreover, a catalogue describing the studied pottery fragments is attached at the end of the article as an Appendix.

The final section of the paper places the ceramic assemblage in a broader historical context to better define the role played by the site of Hirbemerdon Tepe during the Iron Age, with a specific emphasis on the transformation that occurred in the socioeconomic landscape of the upper Tigris river due to the arrival of the Neo-Assyrians in the area during the ninth century BC.

1. THE GEOGRAPHICAL AND ENVIRONMENTAL CONTEXT

The archaeological site of Hirbemerdon Tepe is situated in southeastern Turkey in the Diyarbakır province, 40 km east of the modern town of Bismil (Fig. 1). The settlement rises on a limestone cliff along the west bank of the Tigris river about 1 km east from the confluence of the Batman river tributary, situated in a strategic location overlooking almost the entire river valley from south to north. The site is also located at the beginning of the uplands that separates the upper Tigris region from the Tur 'Abdin and the Jazirah plain of northeastern Syria (Laneri *et al.* 2006).

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The diversity in the natural resources surrounding Hirbemerdon Tepe (i.e., the river basin and its terraces, the uplands, etc.) was also pivotal in defining the subsistence strategies used by ancient groups inhabiting the region. Thus, a combined economy based on agricultural and pastoral activities appears to have been a clear marker since the Chalcolithic period (Ur and Hammer 2009). Additionally, hunting as well as regional and long-distance trade along the river were fundamental for the development of these societies' economic resources (Laneri *et al.* 2008 and 2009). The vicinity of rich metal sources, such as the copper mines in the Ergani and Siirt areas (Belli 1991), increases the importance of this region within a broad Syro-Anatolian socio-political scenario. Moreover, the production of wine, the availability of timber, and the possibility of smelting metal attracted northern Mesopotamian merchants since the Middle Bronze Age (Forlanini 2006).

The complexity of the area's geology (i.e. river terraces and uplands, Ur and Hammer 2009) has also been pivotal for the site's settlement pattern throughout its entire history. In this regards, the archaeologists have been able to identify an area of occupation totalling about 10 hectares of extension that can be differentiated into three main areas (Fig. 2): the High Mound, a flat Outer Town on the eastern versant and the Lower Town on the western versant (Laneri 2005 and 2006).

The multi-phase¹ site has evidence for settlement since the Chalcolithic period (i.e., Phase I, Laneri *et al.* 2009). During the Early Bronze Age II (Phase II, ca. 2750-2500 BC), dispersed houses were located along the eastern edge of the High Mound (Area E). The settlement size expanded during the late third millennium BC (Phase IIIA, Laneri *et al.* 2006). However, it is during the Middle Bronze Age (Phase IIIB, 2010-1464 cal. BC) that Hirbemerdon Tepe reached its acme with a large architectural complex on the High Mound (Area A) and scattered architectural features dedicated to working activities in the Outer Town (Area B, Laneri *et al.* 2006, 2008, and 2009). The collapse of the Middle Bronze Age economic system in the region brought about a downsizing of the architectural complex during the Late Bronze Age (Phase IIIC, ca. 1500-1350). After a brief period of abandonment, it is during the Early Iron Age (Phase IVA, ca. 1050-900 BC) period that the site was reoccupied in the southern (Area D) and northern (Area A) sectors of the High Mound. During the following period (i.e., Phase IVB, Middle and Late Iron Age or the Neo-Assyrian period, ca. 900-610 BC), the architecture of the Early Iron Age was abandoned and the settlement becomes characterized by dispersed and probably temporary structures in the High Mound and areas dedicated to working activities in the Outer Town (Laneri *et al.* 2009). Numerous pits, siloi, and disturbed architecture dating to the Hellenistic (or post-Neo-Assyrian period, Phase V, ca. 600-300 BC) were found in the northern sector (Area A) of the High Mound (Laneri *et al.* 2006). A final level of occupation during the Medieval and Ottoman periods (Phase VI) is recognizable in both the eastern edge (Area E) and the northern sector (Area A) of the High Mound (Laneri in press) with the primary evidence being rubbish pits.

¹ An updated chronological sequence of the site will appear in Laneri in press.

2. THE HISTORICAL SOURCES

When viewed from an historical perspective, it is impossible to analyze northern Mesopotamia during the Iron Age without taking into account the Neo-Assyrian texts. In fact, royal inscriptions are rays of lights that serve to illuminate the historical geography of the region viewed from a diachronic perspective (Kessler 1995). Nevertheless, together with the written sources, archeological and surveying data enrich the picture expressed in the historical sources and support the creation of ancient landscapes on empirical foundations (Parker 2001). Moreover, the new emphasis laid on salvation excavation programs – such as the case of the Ilisu Dam Rescue Project in the upper Tigris river region – is finally giving a broad range of results, which rapidly is gaining a major role in portraying the socioeconomic and cultural aspects of this region and their interpretation.

In terms of the data emerging from the reconnaissance surveys in the region, the rapid transformation in the settlement patterns of the region that can be witnessed during the Iron Age appears as a clear indicator of a socioeconomic change in the area. In fact, the data brought to light by G. Algaze and his colleagues (1991) from their survey in the region demonstrate a significant increase in levels of inhabitation and related land use during the Neo-Assyrian period (i.e., an increase in settlement density of ca. 300 % from the Early Iron Age phase – ca. 1050-900 BC – to the Neo-Assyrian Imperial period – ca. 900-610 BC, Parker 2002: 385). The reasons for this rapid and dramatic transformation in the settlement pattern of the upper Tigris region must be considered within an historical context and more specifically as part of the deportation procedure used by the Assyrians during the height of their Imperial strategies of annexation and control of the Empire's peripheries (ca. 910-649 BC) in order to colonize and gain control over a large amount of land and its resources. The first step of this process has always been invasion and ground occupation. But to bring the territory to its full productivity there must have been a central organization located within the region (i.e., the provincial capital of Tušhan, Parpola 2008). Usually this was initially achieved by roughly blending in with indigenous traditions and social organization while at the same emerging as the new leaders during the first phase. This kind of domination would be finalized by provincialization or direct annexation, which was put into action during the second part of the Neo-Assyrian period.

In terms of historical sources mentioning the upper Tigris river region, written accounts dating to the Middle Assyrian period refer to the area north of the Kashiyari mountains (the modern Tur 'Abdin) as part of 'the lands of Nairi' (Parker 2001: 162). Geographically, Nairi can be collocated around the upper Tigris river region and northeast of it stretching from the Euphrates (west) to the Black Sea (north) and the regions around lake Van and the Urmia basin (northeast) (Liverani 1992: 89). Within this large geographical environ it is important to distinguish the land of Šubria that acted as a buffer zone between the Assyrian and the Urartian kingdoms (Kessler 1995). According to these earlier written sources, the region was a patchwork of different groups with diverse ethnic origins (e.g, Hurrians, Arameians, etc.) and the Assyrian kings, after the military victory over the Hurrian kingdom of Mitanni/Hanigalbat in the thirteen century BC (Radner 2006), would have moved to these regions to fight against local rulers in order to gain control over strategic routes most probably used for accessing precious natural resources

(e.g., timber, copper, iron, Postgate 1979: 199-200)² and commodities (e.g., wine, Radner 2006: 292-299), and to hunt wild animals, such as gazelles, ibex and deer (*ibid.* 2006: 284). However, the importance of the upper Tigris river region for the Assyrian kings was not only due to the possibility of economic gain, but also because ‘of the religious, magical and spiritual meaning of the source of the Tigris, which represents the essential resource for life and wealth in Assyria’ (Kreppner 2002: 375). The importance of the source of the Tigris in the religious topography of the Assyrians is proven by the rock reliefs left by Tiglath-pileser I and, later, by Shalmanaser III in the famous ‘Tigris Tunnel’ located in the modern province of Lice ca. 80 km northeast of Diyarbakır (*ibid.* 2002: figs. 11-12), as well as by a mention of the ceremony engraved in the inscription of the Shalmanaser III’s Black Obelisk and the scene dedicated to the journey to the source by the same king represented in the bronze friezes of the Gates of Balawat (*ibid.* 2002: fig. 13).

In his inscription, Tiglath-pileser I (1114-1076 BC) offers the perspective of an Assyrian king on the political fragmentation of the region when he lists the toponyms of the 23 kingdoms³ of ‘the lands of Nairi’ that oppose him in a military confrontation (Salvini 1967: 50; Budge and King 1902, col. IV, 71-82). The actions of alliance among these rulers are extremely important because they reveal how the territory was indeed connected and homogenous prior to the Assyrian conquest. These local kings recognized each other and, in cases of political endangerment, would unite against the common enemy. For example, the written sources made available by Tiglath-pileser I inform us that one of these rulers (i.e., Sieni, the king of Daiaeni) might have created and organized the alliance of these local kingdoms against the Assyrian king.⁴ This episode reveals that even though Nairi was fragmented into local communities they had a sort of commonality, probably of tribal or kinship origin, that was expressed in cases of emergency.

However, it is with Assurnasirpal II (883-859 BC) that a different approach is encountered in the military annexation of the region to the Assyrian kingdom and the creation of a provincial capital (i.e., Tušhan, modern Ziyaret Tepe). Assurnasirpal II erected a palace here (Grayson 1991: 202; Parpola 2008: 21-25) and the settlement grew from its original 3 hectares extent of the Early Iron Age to an impressive expanse of 32 hectares during the Neo-Assyrian period (Parker 2001: 210). This king also left behind a series of reliable historical resources, such as the famous ‘Kurkh monolith’ found at the modern site of Uçtepe in which his fifth military campaign is described (Kessler 1980 and 1995; Liverani 1992). His royal inscriptions are also important because they clarify the historical geography of the area in mentioning the neighbouring regions of Bīt-Zamāni, Šubria, Nirdun and Urumu that were paying tribute to him, and that all belonged to the

² As pointed out by Postgate (1979: 199), even though there is no mention of the Ergani mines in Neo-Assyrian texts, the wide accessibility of metal sources in the area might call for a lack of acknowledgment in the written sources of used practice.

³ The 23 kingdoms are: Tumme, Tunube, Tuali, Kindari, Uzula, Unzamuni, Andiabe, Pilakinni, Aturgini, Kulibarzini, Šinibirni, Himua, Paiteri, Uiram, Šururia, Abaeni, Adaeni, Kirini, Albaia, Ugina, Nazabia, Abarsiuni and Daiaeni (Salvini 1967: 50; Budge and King 1902, col. IV, 71-82).

⁴ The same Assyrian king also mentioned other battles against Nairi in which up to 60 kings are mentioned (Budge and King 1902, col. IV, 96-101).

‘lands of Nairi,’ as noted by Parker (2001, endnote 794). Moreover, Assurnasirpal supported the Aramaic kingdom of Bīt-Zamāni whose capital was Amedi, most probably to be equated with the modern city of Diyarbakır (Parker 2001: 163). Located on his route from the provincial capital of Tušhan to Amedi are two additional important centres, which from east to west are Tidu (possibly Uçtepe) and Sinabu (possibly Pornak). With the advent of Assurnasirpal, the northeastern frontier of the Assyrian Empire is now greatly garrisoned and new and old installations are fully fortified (Parker 1997). This is probably the peak of the upper Tigris region development under the Assyrian control.

A later stele found at Uçtepe was created by Assurnasirpal’s son, Shalmaneser III (858-824 BC). In the inscription he left behind (Grayson 1996), the name of the governor of Nairi, Ihtadi-lipūšu, is mentioned and we are also informed that the whole land of Nairi is now under the strict control of the Assyrians and has been officially turned into a province. Moreover, Shalmaneser III conducted various military campaigns against Urartu and Šubria.⁵

After Shalmaneser III’s reign, Assyria lost much of its splendour. During his son’s reign (Shamshi-Adad V, 823-811 BC), we enter a new period of incipient decline in the hegemony. Rebellions and responding expeditions continue to alternate with each other, here and in the northeastern areas as in Urartu.

In the following decades control over the upper Tigris region is again achieved, as confirmed by the tribute levying conducted by Adad-nirari III (810-783 BC). The primary objective of Assyria is now the destruction of the kingdom of Urartu. The following Assyrian kings, Shalmaneser IV (782-773 BC), Assur-Dan III (772-755 BC) and Assurnerari V (754-745 BC), suffered from the military strategies of the Urartian in addition to political problems within Assyria proper. Great energy was spent by the Assyrian kings in an attempt to cope with the northern forces of Urartu. In fact, it is during this period that Urartu possibly conquered a position within or very close to Assyrian borders, like the stronghold countries of Nihiria, maybe near Šubria, and Kummuh (Piotrovskij 1966).

Assyria finds a renewed lead over the region with Tiglath-pileser III (744-727 BC), who claims in his annals the long-lasting loyalty of Tušhan even when surrounding provinces and kingdoms rebelled. Together with his ability, and shortly after that, of Sargon II (721-705 BC), Assyria was able to recover its territories and restore some of the old borders, in addition to an expansion into Urartian land under the latter ruler.

With Esarhaddon (680-669 BC), the Assyrians definitely take control over Šubria, transforming it into two provinces while unifying those of Tušhan and Bīt-Zamāni (Radner and Schachner 2001: 766). Due to a need for direct power management of the available resources, the permitted autonomy *status* granted by the previous Neo-Assyrian

⁵ The multiethnic region of Šubria played a fundamental role in the history of the region during the Late Bronze and Iron Ages. In fact, it became a sort of outpost for the Hurrian people during their dispersal after the collapse of the kingdom of Mitanni, a buffer state throughout the Assyrian Imperial domination of the region, and home for a large part of the population who did not support the Assyrian Imperial annexation of the region. Spies, deserters and murderers found refuge in its lands up until Assyrian double provincialization by the eponymous cities Upummu and Kullimeri under Esarhaddon in 673. (Radner and Schachner 2001, 760).

kings must have come to an end in this period. Moreover, the most reliable historical sources of information recently found at the provincial capital of Ziyaret Tepe/Tušhan date to this final phase of occupation (Parpola 2008).

The collapse of the Neo-Assyrian Empire occurred after the sack of the capital Niniveh in 610 BC. This dramatic event had its effects in the Imperial periphery, and the complex system of socioeconomic organization imposed with the arrival of the Neo-Assyrians slowly collapsed to bring about a period of political uncertainty that is not clearly recognizable in the archaeological data.

3. THE IRON AGE PERIOD AT HIRBEMERDON TEPE

In terms of chronology, the Iron Age in the upper Tigris river valley can be divided into two main phases. The first phase, which corresponds with the Early Iron Age period (i.e., Phase IVA at Hurbemerdon Tepe, ca. 1050-900 BC), is the result of the organization of local groups and is marked by the ubiquitous presence of locally produced ware (e.g., the so-called Groove Ware, see below). The second phase (i.e., Phase IVB at Hurbemerdon Tepe, ca. 900-610 BC) is clearly marked by pottery production related to the arrival of the Assyrians in the region and by a complete transformation of the settlement pattern with the abandonment of the architecture belonging to the previous phase.

It is during this later phase that the settlement patterns of the region was dramatically transformed by a more centralized administration and was based on a four-tier hierarchical pattern that consisted of provincial capitals (e.g. Ziyaret Tepe/Tušhan, Parpola 2008) where a governor-like is in charge; medium-sized centres controlled by the local governor who paid tribute to the Assyrian king (e.g., Gre Dimse, Schachner 2003: 160); fortified farming villages or *dunnu* (similar to the Middle Assyrian ones, e.g., Giricano/Dunnu-ša-Uzibi, 11 km southeast of Bismil, Radner 2004);⁶ smaller hamlets of a similar rural character, probably named *kapru* (Radner 2003: 118), which possibly included Hurbemerdon Tepe. Dating to this phase is the Building Complex of Ziyaret Tepe/Tušhan in which were discovered a checkerboard river pebble mosaic, cuneiform tablets, objects in ivory and bronze, and many others remains (Matney *et al.* 2002; Matney and Rainville 2005; Matney *et al.* 2007; Parpola 2008).

At Hurbemerdon Tepe all these phases are represented both architecturally and through the means of material culture. In particular, the Early Iron Age period (Phase IVA) appears to be the best preserved as highlighted by the architecture uncovered during the excavation.

3.1. Architecture

As mentioned before, Iron Age period evidence was uncovered in different sectors of the High Mound (Area A, Step Trench AC, and D) and the Outer Town (Area B) (Fig. 2):

⁶ The tablets found inside a ceramic vessel at Giricano date to the 11th century BC (Radner 2004).

- *Area A* – Due to the mound's steep slope, the action of weathering, and later pits, the architecture referring to the Iron Age period are badly preserved and in area A only a few patches have been brought to light. They consist of three intersecting wall segments (*loci* 193, 194, 195) forming a 'T' near the southwestern corner of the area. These walls are contemporaneous with the related structures found in Step trench AC and belong to an Early Iron Age horizon. At the northeastern corner of Area A two floors (*loci* 174, 192) and the remains of Early Iron Age period walls were found. Regarding the Neo-Assyrian and Late Iron Age phases, only pits were brought to light in this sector.
- *Step trench AC* (Fig. 3) – The Step Trench AC-AB stretches along the south-north axis of the northern sector of the High Mound and cuts through Area A. Regarding the Iron Age period, in the upper sector (i.e., Step trench AC) the archaeologists have uncovered two perpendicular walls (*loci* 68 and 74) forming the corner of an enclosed space (Room A) and its compacted clay floor (*locus* 72). Inside of this corner there is a semi-circular feature that might have functioned as a well (*locus* 70). As a whole the architecture is constructed of medium-sized stones. It was built on top of the Late Bronze Age filling of the *piazza*, dating to the Middle Bronze Age architectural complex (Laneri *et al.* 2008), and abuts the collapsed buildings of the uppermost and southern sectors of the complex. The material culture found inside the room belongs to an Early Iron Age horizon confirming that these architectural features must be in phase with the previously mentioned walls found in Area A. No architectural traces of later Iron Age phases were found in the step trench.
- *Area D* (Figs. 4-5) – This area is situated on the southern sector of the High Mound and is characterized by a series of open-ended rooms (4-5) aligned along an E-W axis and recognizable from the surface. The archaeologists have excavated part of one of these rooms (Room 1) that consists of two perpendicular stone walls (*loci* 4, 10) built on a foundation cut into the virgin soil, consisting of natural limestone bedrock and a thick layer of compacted pebbles. The bedrock was thus used to limit the western part of the building and as the floor for the rooms (*locus* 18). Except for a few pits dating to later Medieval periods, the whole building is in an excellent state of preservation and consists of a series of features that are connected with the bread preparation cycle. In fact, two elliptically shaped *tannur* ovens (*loci* 7, 19) were discovered inside one of these rooms situated along a wall (4). Across from them and in a central position there was a small pit (*locus* 16) that was probably used for water poured from the small bottle found *in situ* along the pit's western edge (Fig. 8). South of the pit was a grinding stone and next to it a large stone to be used in combination with the grinding stone and, in the nearby mortar in which a pestle was found, the crushing of whole grains was enacted. Another mortar is recognizable in the section closer to the northern side of the room. Moreover, the floor, as well as all the features found in the room, are heavily burnt confirming the hypothesis of the use of fire for enacting working activities in the room. Unfortunately part of the room is heavily disturbed by a Medieval pit, but the remainder of the findings form the basis of this extraordinary discovery of a 'bakery' that, according to the numerous pottery sherds and complete vessels of the Grooved Ware horizon found *in*

situ (see below), can be dated to the Early Iron Age phase, making it a unique discovery for the whole upper Tigris river valley. Moreover, the baking of bread in the modern Kurdish villages allow us to reconstruct the production cycle based on ethnographic analogies in which (1) the cereal seed is first pounded in the mortar with a pestle to separate the hull from the seed in the mortar; (2) after that, the stripped seeds are grinded into flour on the large stone by a process of friction exerted through the use of the grinding stone; then (3), the flour was mixed with water (i.e., contained in the bottle) in the small pit in order to obtain the dough, which was spread out and, finally (4) baked against the walls of the oven *tannur*.

- *Area B* (Fig. 6) – This area is located in the Outer Town. The *strata* here are poorly preserved due to their proximity to the plough zone and its vicinity to the river bed. The few relics found in upper most levels are two stone foundation walls (*loci* 1, 4), one of which (1) is monumental and with a large stone used as threshold, and the related enclosed floor (*locus* 5). This area revealed pottery sherds of Neo-Assyrian production (see below) together with a basalt bowl and a pair of cleft grinding stones (Fig. 9) that are distinctive of this later period (Laneri *et al.* 2006). These data confirm that this area must have been used for processing agricultural products during the Neo-Assyrian period.

3.2. Pottery

The sherds here presented were collected from Iron Age period (i.e., Phases IVA-B) archaeological contexts during Hirbemerdon Tepe's 2005-2009 archaeological seasons.

In order to identify and study the diagnostic sherds the following procedures were enacted: washing, labelling, drawing, analysis, description, photography, cataloguing, and, finally, comparative analysis. Based on these premises, the Iron Age assemblage *corpus* totals 552 diagnostic sherds, 400 of which have been selected for the creation of the site's Iron Age typology. 228 of these are presented in this publication and included the following: 182 rims and whole vases, 22 bases, 8 handles and 16 body sherds.

3.2.1. Wares, morphotypes and comparanda

According to commonalities in clay fabrics, surface treatments, class categories, and chronological seriation, the Iron Age pottery assemblages can be divided into the following categories or wares (table 1): A) Brown/Pink Ware (BPW) and B) Grooved Ware (GRW) belonging to the Early Iron Age phase (Phase IVA); C) Plain Ware (PW) belonging to the Middle/Late Iron Age phases (i.e., the Neo-Assyrian phase or Phase IVB). From among the pottery assemblage, a few painted sherds belonging to PBW were found, but it has not been possible to distinguish a proper Painted Ware category. Moreover, all three Wares present morphological and clay fabric characteristics that can lead towards the identification of a type within a *category* or, more likely, a variation of a type that has been named Cooking Pots (CP). The almost total lack of body sherds with evidence of use related to fire, makes it even more difficult to identify a Cooking Ware category from within our pottery assemblage. In the following section the purpose is to provide a general description of the three wares (and other unique fragments), a detailed

analysis of the morphotypes belonging to these broad categories and a comparative analysis with other similar pottery types in the region and neighbouring areas, here arranged by size. For a detailed analysis of the sherds described in this study, please refer to the catalogue in the Appendix.⁷

Brown/Pink ware (BPW) mainly features medium grain tempers with a slight trend towards mineral (i.e., sand, limestone, grit and mica) and vegetal inclusions (chaff + minerals) (see table 2). In some cases the sherd cores are under fired as revealed by a grey coloration. The colors of the slip and paste range from mostly brown to pink hues. The majority of the sherds present handmade traits, while a few may have been made on a potter's wheel. A strong to slight burnishing is widely present, usually applied in a rough manner and with incoherent direction. Observed decorations include a few incised or excised type variations, moulded or applied elements, mostly rope-shape bands (table 3). Open forms are the class of higher incident, and this is a detailed analysis of the types and *comparanda*:

Bowls

- Small/medium bowls with simple round rim. (Nr. 31-33) – (Lidar Höyük. Müller 1996, pl. 22 n. 1, 5, 9; Talavaş Tepe. Parker and Creekmore 2002, fig. 39 lett.T).
- Medium lug-bowls with simple round rim. (Nr. 38-40) – (No analogy found).
- Medium/large sinuous bowls with slightly everted simple square rim. (Nr. 41-43) (Norşuntepe. Bartl 2001, fig. 3 n. 2).
- Medium/large sinuous bowls with everted simple rim. (Nr. 48-50) – (Ziyaret Tepe. Matney and Rainville 2005, fig. 4 n. 9; Gre Dimse. Karg 1999, fig. 11 n. 9; Gundik Tepe. Parker 2001, fig. 4.5 lett. H)
- Medium/large bowls with slightly everted simple round rim. (Nr. 3-6) – (Near Çiçek Yordu. Parker 2001, fig. 4.10 lett. G; Kenan Tepe. Parker *et al.* 2003, fig. 6. Lett. F, I)
- Large/very large bowls with indented simple round rim. (Nr. 34-36) – (for Nr. 36: Parker 2001, Type 1 p. 285.) Numerous examples of this type.
- Large bowls with everted tapered rim (*bec du canard*). (Nr. 99-105) – (Lidar Höyük, Müller 1996, pl. 8 n. 3, 4, 8, 9).
- Large collar neck bowls with everted rim. (Nr. 71-75) – (Hakemi Use. Tekin 2006, fig. 4 n. 3. Gre Dimse. Karg 1999, fig. 10 n. 7; Lidar Höyük. Müller 1996, pl. 11 n. 8, 9; Ernis-Evditepe. Belli and Konyar 2003, fig. 29 n. 3, 4; Kurban Höyük survey. Wilkinson 1990, fig. B/11 n. 4).
- Medium/large squeezed neck bowls with inverted hammerhead rim. (Nr. 110-112) – (Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. D)

⁷ To describe the pottery, the Munsell Soil Color Charts (2000 edit.) were used to identify the hue, while the Leicester University Geology Grain Card charts were used for the inclusions' grain, size, percentage and sorting.

- Large deep high carinated bowls with everted rim. (Nr. 66-70) – (Dilkaya. Çilingiroğlu 1991, fig. 03.5 n. 2 (end of EIA); Norşuntepe. Bartl 1994, fig. 11 n. 5; Gre Dimse. Karg 2001, fig. 7 lett. F; Ernis-Evditepe. Belli and Konyar 2003, fig. 29 n.1)

Painted bowls

- Open shape body fragments with rope-shape band decoration. (Nr. 227) – (No analogy found)

Jars

- Small globular jug with straight inverted tapered rim. (Nr. 127) – (Korucutepe. Winn 1980, pl. 52 n. 8, pl. 60 lett. D; Tille Höyük. Blaylock 1999, fig. 2 n. 9).
- Medium hole-mouth jars with oval thickened rim. (Nr. 163) – (No analogy found)
- Medium deep jars with oval thickened rim. Cooking Pot (Nr. 161-162) – (No analogy found).
- Medium/large conical neck jars with everted brim rim. (Nr. 148-150) – (Lidar Höyük. Müller 1996, pl. 75 n. 4, 5, pl. 94 n. 6; Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. FF).
- Large high carinated jars with inverted rim. (Nr. 155-160) – (Norşuntepe. Bartl 2001, fig. 3 n. 7; Lidar Höyük. Müller 1996, pl. 55 n. 7).

Painted Jars

- Medium high carinated jar with inverted rim. (Nr. 158) – (Norşuntepe. Bartl 1994, fig. 3. Bartl 2001, fig. 3 n. 12; Near Yazlıca. Parker 2001, fig. 4.5 lett. K).
- Small flared neck jug with everted round simple rim. Cooking Pot (Nr. 128) – (No analogy found).

Handles

- Cylindric/ribbon grooved handles. Cooking Pot (Nr. 208-212) – (Ziyaret Tepe. Matney and Rainville 2005, fig. 5 n. 15; Hakemi Use. Tekin 2006, fig. 8 n. 1, 2; Lidar Höyük. Müller 1996, pl. 60 n. 13; Korucutepe. Winn 1980, pl. 59 n. 66, 67).
- Cylindric/ribbon handles with ‘chain’ and ‘ladder’ motives decoration. (Nr. 205-207) – (Korucutepe. Winn 1980, pl. 60 lett. I).

Bases

- Small concave bases. (Nr. 192-195) – Numerous examples of this type.
- All sizes simple flat bases. (Nr. 183-187) – Numerous examples of this type.

Body sherds

- Open shape body fragments with rope-shaped band decoration. (Nr. 224-227) – (Kenan Tepe . Parker *et al.* 2003, fig. 6 lett. CC; Boztepe, Talavaş Tepe. Parker and Creekmore 2002, fig. 15 lett. J - fig. 39 lett. AA; Korucutepe. Winn 1980, pl. 56 n. 18; Kurban Höyük survey. Wilkinson 1990, fig. B.11 n. 53).

- Closed shape body fragments with rope-shaped band decoration. (Nr. 216-223) – (Taşkesen, Çengiler Tepe. Sagona and Sagona 2004, fig. 111 n. 3 - fig. 191 n. 4; Kurban Höyük survey. Wilkinson 1990, fig. B.11 n. 54; Birkleyn. Schachner 2009, fig. 126 n. 3, 6, 8, 9, 11, 13, 18, 21) Numerous examples of this type.
- Spout fragment. Possible Cooking Pot. (Nr. 213-214) – (Norşuntepe. Bartl 2001, fig. 4 n. 2, 4, 5, 7; Bartl 1994, fig. 13 n. 4; Ziyaret Tepe. Matney and Rainville 2005, fig. 5 n. 19; Hakemi Use. Tekin 2006, fig. 8 n. 6, 7; Giricano. Schachner 2003, fig. 6 lett. D, F).
- Body fragment with applied embossed decorations (the arched element had probably lug functionality). (Nr. 215) – (Norşuntepe. Müller 2003, fig. 4 n. 2; Gre Dimse. Karg 2002, fig. 3 lett. A).

Grooved Ware (GRW). The temper and hue are very similar to the previous BPW assemblage. The main characteristic of this group is its decoration that is usually located close to the rim, or between the rim and the vessel shoulder. The types of decoration consist of incisions or excisions, and sometimes a corrugated modelling of the area (indented or undulated), varying from one to four grooves. Moreover, almost every type features a variation with fingernail or fish-bone motive impressions within the grooves. The whole assemblage appears to have been handmade and, as in the previous case, low firing temperatures were used. For this phase the majority of GRW vessels are closed shapes, in particular hole-mouth jars, spouted jars and closed bowls (e.g., bossed and lugged bowls). The types belonging to the GRW assemblage are as follows:

Bowls

- Small/medium (occasionally sinuous) bowls with simple round rim. (Nr. 44-47) – (Ziyaret Tepe. Matney and Rainville 2005, Fig. 4 n. 7. Matney *et al.* 2009, fig. 17 lett. A; Kavuşan Höyük. Kozbe 2008, fig. 10 n. 7; Norşuntepe. Bartl 1994, fig. 6 n. 3. Bartl 2001, fig. 2 n. 11, 12; İmikuşağı. Köroğlu 2003, fig. 2 n. 2. Sevin 1995, fig. 15 n. 2; Tushpa. Terhan 1994, fig. 30 n. 7, 8, 9)
- Medium bowls with simple square rim. Possible Cooking Pot (Nr. 1-2) – (Kazancı. Köroğlu 2003, fig. 3 n. 10; Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. H; Talavaş Tepe. Parker and Creekmore 2002, fig. 39 lett. K; Korucutepe. Winn 1980, pl. 53 n. 11; İmikuşağı. Sevin 1995, fig. 13 n. 4;
- Medium/large bowls with simple round rim. (Nr. 28-30) – (Ziyaret Tepe. Matney and Rainville 2005, fig. 4 n. 4; Kavuşan Höyük. Kozbe 2008, fig. 6, 8; Norşuntepe. Bartl 1994, fig. 9 n. 5; Hakemi Use. Tekin 2006, fig. 3 n. 1, fig. 5 n. 3. Kopekli. Köroğlu 2003, fig. 3 n. 3; Talavaş Tepe. Parker e Creekmore 2002, fig. 39 lett. M, BB; Tushpa. Tarhan 1994, fig. 22 n. 2; Korucutepe. Winn 1980, pl. 58 n. 29, 30; Birkleyn. Schachner 2009, fig. 124 n. 6, 11).
- Medium/large bowls with slightly inverted simple rim. (Nr. 116-120) – (Ziyaret Tepe. Matney and Rainville 2005, fig. 4 n. 3; Kavuşan Höyük. Kozbe 2008, fig. 11 n. 2; Lchashen-Metsamor. Avetisyan and Bobokhyan 2008, fig. 44 n. 3; Norşuntepe. Bartl

1994, fig. 6 n. 2; Hakemi Use. Tekin 2006, fig. 3 n. 2; Giricano. Schachner 2003, fig. 6 lett. A, B; Norşuntepe. Bartl 2001, fig. 2 n. 4, 5; Lidar Höyük. Müller 1996, pl. 60 n. 1, 4, 7; Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. Q, Y; Ernis-Evditepe. Belli and Konyar 2003, fig. 28 n. 1, 2; Tushpa. Terhan 1994, fig. 30 n. 1, 5; Korucutepe. Winn 1980, pl. 52 n. 5; Hulvenk, Hankedi. Russel 1980, fig. 18 n. 278.19 - fig. 18 n. 281.16; Birkleyn. Schachner 2009, fig. 124 n. 1, 4; İmikuşağı. Sevin 1995, fig. 13 n. 1, 2; Holkan Hirbesi. Parker 2001, fig. 4.5 lett. N; Tille Höyük. Blaylock 1999, fig. 3 n. 8, 11).

- Large bowls with inverted square rim. (Nr. 113-115) – (Ziyaret Tepe. Matney 1998, fig. 7 n. 3; 2005, fig. 4 n. 1, 5; Kavuşan Höyük. Kozbe 2008, fig. 11 n. 4)
- Large/very large bowls with everted tapered rim. (Nr. 7-27) – (Ziyaret Tepe. Matney 1998, fig. 7 n. 4; Kavuşan Höyük. Kozbe 2008, fig. 10 n. 2, 4; Lchashen-Metsamor. Avetisyan and Bobokhyan 2008, fig. 43 n. 8, 10; Norşuntepe. Bartl 1994, fig. 6 n. 1, Bartl 2001, fig. 2 n. 3; Hakemi Use. Tekin 2006, fig. 5 n. 4; Kopekli. Köroğlu 2003, fig. 3 n. 1; Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. K, M, N, O; Talavaş Tepe. Parker e Creekmore 2002, fig. 39 lett. J, L; Korucutepe. Winn 1980, pl. 58 n. 22, 30; Kazancı, Gökçetevek. Köroğlu 1998, fig. 16 n. 6 - fig. 16 n. 12; Birkleyn. Schachner 2009, fig. 124 n. 2; Çiçek Yordu, Sari Köy, Rum Tepesi. Parker 2001, fig. 4.10 lett. K - fig. 5.12 lett. I, - fig. 4.10 lett. J; Tille Höyük. Blaylock 1999, fig. 3 n. 13, 17).

Jars

- Medium/large hole-mouth jars with pointed simple rim. (Nr. 173-176) – (Norşuntepe. Bartl 2001, fig. 2 n. 2; Lidar Höyük. Müller 1996, pl. 59 n. 8; Kenan Tepe. Parker *et al.* 2003, fig. 6 lett. V, W; Birkleyn. Schachner 2009, fig. 125 n. 4; Gre Migro. Parker 2001, fig. 5.25 lett. F, G, H; Tille Höyük. Blaylock 1999, fig. 3 n. 5).
- Medium/large hole-mouth jars with simple rounded rim. (Nr. 166-172) – (Van Castle Mound. Sevin 1994, fig. 21.5 n. 2, 3; Ziyaret Tepe. Matney 1998, fig. 7 n. 1. Matney and Rainville 2005, fig. 5 n. 19, 20. Matney *et al.* 2009, fig. 17 lett. B. Parker 2001, fig. 5.19 lett. H; Kavuşan Höyük. Kozbe 2008, fig. 15 n. 3, 4, 5, 6; Tille Höyük. French, Moore and Russel 1982, fig. 13 n. 11; Hakemi Use. Tekin 2006, fig. 6 n. 1, 2; Norşuntepe. Bartl 2001, fig. 2 n. 1; Lidar Höyük. Müller 1996, pl. 58 n. 2, 3, 4; Tushpa. Terhan 1994, fig. 30 n. 2, 6; Korucutepe. Winn 1980, pl. 52 n. 4; Hinsor. Russel 1980, fig. 118 n. 282.10; Birkleyn. Schachner 2009, fig. 125 n. 1; Tille Höyük. Blaylock 1999, fig. 3 n. 4, 15).
- Medium/large hole-mouth jars with simple square rim. Possible Cooking Pot (Nr. 177-182) – (Kavuşan Höyük. Kozbe 2008, fig. Hakemi Use. Tekin 2006, fig. 7 n. 1-4; Lidar Höyük. Müller 1996, pl. 64 n. 9, 10).

Body sherds

- Spout fragment. Possible Cooking Pot (Nr. 213-214). (Norşuntepe. Bartl 2001, fig. 4 n. 1, 3, 6, 8. Bartl 1994, fig. 13 n.1, 2; Lidar Höyük. Müller 1996, pl. 60 n. 10-12, 14; Gre Dimse. Karg 2001, fig. 7 lett. A; Giricano. Schachner 2003, fig. 6 lett. E; Tille Höyük. Blaylock 1999, fig. 3 n. 2, 3, 12; Ernis-Evditepe. Belli and Konyar 2003, fig. 28 n. 5; Korucutepe. Winn 1980, pl. 52 n. 4, 5).

Plain Ware (PW) is mainly characterised by a medium mineral or, in minor frequency, a medium vegetal fabric (chaff face). The surface is commonly treated with a pink range slip, otherwise light reddish brown or light brown. Most the vessels of this category seems to have been thrown on a wheel. Only a few examples present decorations obtained with incised or excised techniques. Every type included in this ware shows variations in burnishing typical of this region, although resembling Neo-Assyrian models (Matney *et al.* 2007). Open shapes are majorly encountered. The types and *comparanda* for the PW assemblage are as follows:

Bowls

- Medium/large sinuous bowls with slightly everted simple square rim. (Nr. 41-43) – (Sogutlu, Kazlarbogalzi Tepe. Sagona and Sagona 2004, fig. 119 n. 10 - fig. 183 n. 7; Hamilih. Blaylock 1990, fig. 23 n. 2).
- Large steep wall bowls with simple rim externally ridged. Possible Cooking Pot (Nr. 37) – (Kharabeh Shattani. Goodwin 1995, fig. 46 n. 4).
- Large/very large bowls with indented simple round rim. (Nr. 34-36) – (Kharabeh Shattani. Goodwin 1995, fig. 32 n. 5; For Nr. 36: Parker 2001, Type 1 p. 285).
- Large bowls with everted pointed rim (bec du canard). (Nr. 99) – (Ziyaret Tepe. Matney 1998, fig. 8 n. 1; Parker 2001, Type 1 p. 285).
- Large collar neck bowls with everted rim. (Nr. 71-75) – (Çimentepe. Sagona and Sagona 2004, fig. 160 n.1; Gre Dimse. Karg 2001, fig. 5 lett. M (smaller); Boztepe. Parker and Creekmore 2002, fig. 15 lett. C (smaller); Tell Hamoukar. Ur 2002, fig. 14 n. 11 (associated with other EIA inspired elements); Qasrij Cliff. Curtis 1989, fig. 7 n. 5. fig. 9 n. 23, fig. 24 n. 34; Silope Höyük. Parker 2001, fig. 3.6 lett. B).
- Large shallow bowls with inverted tapered rim externally thickened. (Nr. 80-85) – (Lidar Höyük. Müller 1996, pl. 35 n. 1, 3, pl. 36 n. 10, 11; Yankale Höyük. Parker 2003, fig. 9 lett. F; Boztepe. Parker and Creekmore 2002, fig. 15 lett. F; Qasrij Cliff. Curtis 1989, fig. 26 n. 57, 62, fig. 28 n. 92; Sultantepe. Anastasio 2007, fig. 51 n. 16, 17; Tell Es-Sweyhat survey. Wilkinson 2004, fig. 6.16 n. 3; Tell Shiukh Fawqani. Luciani 2005; pl. 10 n. 128, pl. 13 n. 152-153; Uçtepe. Koroğlu 1998, fig. 10 n. 7; Tell Abu Dhahir, Seh Gubba. Green 1999, fig. 5 n. 3, 5, fig. 7 n. 1; Nineveh. Lumsden 1999, fig. 4 n. 10).
- Medium/large steep wall bowls with hammerhead rim. (Nr. 88-98) – (Ayanis. Kozbe *et al.* 2001, pl. VI n. 10; Boztepe. Parker and Creekmore 2002, fig. 17 lett. I; Tell Es-Sweyhat survey. Wilkinson 2004, fig. 6.17 n. 27; Değirmentepe, Kaleköy. Ökse 1988, fig. 100, 102 - fig. 104; Çattepe. Parker 2001, fig. 4.11 lett. F).
- Large bowls with hammerhead rim. (Nr. 86) – (Harabe Bezikan Höyük; Khirbet Qasrij. Curtis 1989, fig. 27 n. 67; Sultantepe. Anastasio 2007, fig. 51 n. 28; 'Ağîğ region. Bernbeck 1993, pl. 94 lett. P; Tell Keisan. Lehmann 1996, pl. 8 n. 46/1).
- Large bowls with thickened hammerhead rim. (Nr. 87) – (Ziyaret Tepe. Matney 2007, fig. 18 lett. F. Parker 2001, fig. 5.17 lett. F; Lidar Höyük. Müller 1999, pl. 26. n. 6; Tell Shiukh Fawqani. Luciani 2005, pl. 9 n. 122).

- Large/very large shallow bowls with everted tapered rim. (Nr. 51-55) – (Tell Es-Sweyhat survey. Wilkinson 2004, fig. 6.16 n. 33; Tell Shiukh Fawqani. Luciani 2005, pl. 33 n. 390).
- Large high gently carinated bowls with everted tapered rim. (Nr. 56-62) – (Çorak Tepe. Sagona and Sagona 2004, fig. 125 n. 11; Takyan Tepe. Parker 2001, fig. 3.6 lett H).
- Medium/large high carinated bowls with indented simple rim. (Nr. 63-65) – (Ayanis. Kozbe *et al.* 2001, pl. XIV n. 14, pl. XIX n. 32; Lidar Höyük. Müller 1996, pl. 11 n. 4, 12; Değirmentepe. Ökse 1988, fig. 815).
- Large deep high carinated bowls with everted rim. (Nr. 66-70) – (Ayanis. Kozbe *et al.* 2001, pl. VI n. 8; Khirbet Qasrij. Curtis 1989, fig. 25 n. 42; Değirmentepe. Ökse 1988, fig. 121).
- Medium/large carinated bowls with everted rim. (Nr. 76-79) – (Ayanis. Kozbe *et al.* 2001, pl. XIX n. 25, 26; Lidar Höyük. Müller 1996, pl. 17 n. 16. Qasrij Cliff, Khirbet Qasrij. Curtis 1989, fig. 9 n. 22 - fig. 23 n. 7, fig. 24 n. 25. Hattara. Negro 1997, fig. 1 n. 5, 7; Kaleköy. Ökse 1988, fig. 225, 234. Basorin Höyük, Gre Migro. Parker 2001, fig. 3.8 lett. P - fig. 5.26 lett. I).
- Large thin walled and high carinated bowls with inverted rim (IV variants). (Nr. 106-109) – I (Ayanis. Kozbe *et al.* 2001, pl. XXI n. 1; Basorin Höyük. Parker 2001, fig. 3.8 lett. J) - II (Nineveh. Lumsden 1999, fig. 5 n. 21) - III (Gre Dimse. Karg 2002, fig. 7 lett. B; Qalat Şergat. Anastasio 2007, fig. 79 n. 4 lett. AB; ‘Ağîğ region. Bernbeck 1993, pl. 93 lett. D; Yankale Höyük. Parker 2001, fig. 3.6 lett. F) - IV (no analogy found).

Jars

- Small/medium cylindric neck jars with “D” shape rim. (Nr. 121-123) – (Ziyaret Tepe. Matney 1998, fig. 9 n. 4; Lidar Höyük. Müller 1996, pl. 103 n. 7; Gre Dimse. Karg 2001, fig. 5 lett. O, P, fig. 6 lett. N; Kenan Tepe. Parker and Creekmore 2002, fig. 17 lett. H, P; Kurban Höyük survey. Wilkinson 1990, fig. B.11 n. 9, 19; Khirbet Qasrij. Curtis 1989, fig. 33 n. 167; Tell Beydar survey. Wilkinson and Barbanes 2000, fig. 3 n. 9; Değirmentepe. Ökse 1988, fig. 400, 406; Girik Tahti. Parker 2001, fig. 3.17 lett. L).
- Medium cylindrical neck jars with oval internal and external thickened rim. (Nr. 124-126) – (Ziyaret Tepe. Matney 1998, fig. 9 n. 5; Zeytin Bahçeli Höyük. Deveci and Mergen 1999, fig. 4 n. 5; Tell Hamoukar. Ur 2002, fig. 14 n. 7; Tell Beydar survey. Wilkinson and Barbanes 2000, fig. 2 n. 9; Tell Shiukh Fawqani. Luciani 2005, pl. 17 n. 190. Makinson 2005, pl. 17 n. 108; Değirmentepe. Ökse 1988, fig. 403).
- Medium deep jars with oval thickened rim. Cooking Pot (Nr. 161-162) – (Lidar Höyük. Müller 1996, pl. 65 n. 11, 18).
- Large neck-less jars with “D” shaped rim. Possible Cooking Pot (Nr. 151-154) – (‘Ağîğ region. Bernbeck 1993, pl. 118 lett. L, pl. 119 lett. A; Çiçek Yordu, Gre Migro. Parker 2001, fig. 4.10 lett. I, H - fig. 5.27 lett. B).
- Medium flared neck jars with tapered everted rim. (Nr. 133-135) – (Kilise Ardi Tepe. Sagona and Sagona 2004, fig. 187 n. 7, 9; Tell Shiukh Fawqani. Makinson 2005, pl. 3 n. 12).

- Medium flared neck jars with everted thickened oval rim. (Nr. 145-147) – (Çengiler Tepe. Sagona and Sagona 2004, fig. 191 n. 3; Ayanis. Kozbe *et al.* 2001, pl. VII n. 6, pl. XVII n. 24).
- Medium/large flared neck jars with everted round simple rim. (Nr. 129-132) – (Ziyaret Tepe. Matney and Rainville 2005, fig. 4 n. 10; Ayanis. Kozbe *et al.* 2001, pl. III n. 12, pl. XVII n. 3, 4) Numerous examples of this type.
- Medium/large flared neck jars with everted pointed rim (bec du canard). (Nr. 136, 140-144) – (Uğrak Taslık Höyük. Sagona and Sagona 2004, fig. 112 n. 8; Lidar Höyük. Müller 1996, pl. 103 n. 10, 11; Gre Virike. Ökse 1999, fig. 7 n. 25; Tell Hamoukar. Ur 2002, fig. 14 n. 5) Numerous examples of this type.
- Small/large flared neck jars with everted thickened square rim. (Nr. 137-139) – Numerous examples of this type.

Bases

- Small concave bases. (Nr. 192-195) – Numerous examples of this type.
- Small/medium ring concave bases. (Nr. 196-199) – (Ayanis. Kozbe *et al.* 2001, pl. XIV n. 34; Khirbet Qasrij. Curtis 1989, fig. 44 n. 341, 348; Tell Shiukh Fawqani. Luciani 2005, pl. 28 n. 331; Tell Beydar survey. Wilkinson and Barbanes 2000, fig. 2 n. 14; 'Ağtığ region. Bernbeck 1993, pl. 128 lett. N).
- Simple flat bases. (Nr. 183-187) – Numerous examples of this type.
- Convex ring-bases. (Nr. 200-204) – (Eski Koyeri Tepe 1. Sagona and Sagona 2004, fig. 118 n. 4; Ayanis. Kozbe *et al.* 2001, pl. XIII n. 7, pl. XIV n. 36, 37; Gre Virike. Ökse 1999, fig. 6 n. 13; Tell Hamoukar. Ur 2002, fig. 14 n. 17; Khirbet Qasrij. Curtis 1989, fig. 44 n. 334, 349; 'Ağtığ region. Bernbeck 1993, pl. 128 lett. R, S, pl. 129 lett. G, K; Tell Shiukh Fawqani. Luciani 2005, pl. 28 n. 329, 330).
- Gentle ring-bases. (Nr. 188-191) – (Aksaçlı. Sagona and Sagona 2004, fig. 115 n.6; 'Ağtığ region. Bernbeck 1993, pl. 128 lett. F-I; Tell Shiukh Fawqani. Luciani 2005, pl. 28 n. 321).

Body sherds

- Body fragments with rope-shape band decoration. (Nr. 216-223) – (Kurban Höyük survey. Wilkinson and Barbanes 2000, fig. 2 n. 17; Çubuklu. Köroğlu 1998, fig. 16 n. 11; Gre Migro. Parker 2001, fig. 5.24 lett. A; Köşkerbaba. Değirmentepe. Ökse 1988, fig. 1096, 1126 – fig. 1097) Numerous examples of this type.

Others:

- Wedges. Baked clay objects that possibly had a wedge function used during the firing process. They are flat underneath and rounder on top, with small depressions at the ends (not always) perhaps the marks of what they were holding in place. In a few cases finger marks are evident. (Nr. 228) – (İmikuşağı. Sevin 1995, fig. 18 n. 7).

| Wares | Assemblage | Sherds | % |
|--------------|------------|--------|-------|
| BPW | | 66 | 28,9 |
| GRW | | 54 | 23,6 |
| | PBW+GRW | 120 | 52,63 |
| PW | | 104 | 45,6 |
| | PW | 104 | 45,6 |
| N/A | | 4 | 1,7 |
| <i>Total</i> | | 228 | 100 |

Table 1. Distribution of the main three Iron Age wares at Hirbemerdon Tepe.

| Fabric | BPW | | GRW | | PW | | N/A | | <i>Total</i> | |
|---------------|--------|------|--------|------|--------|------|--------|-----|--------------|------|
| | Sherds | % | Sherds | % | Sherds | % | Sherds | % | Sherds | % |
| Medium-fine | 4 | 1,7 | 0 | 0 | 10 | 4,3 | 0 | 0 | 14 | 6,1 |
| Medium | 47 | 20,6 | 42 | 18,4 | 70 | 30,7 | 1 | 0,4 | 160 | 70,1 |
| Medium-coarse | 9 | 3,9 | 8 | 3,5 | 5 | 2,1 | 0 | 0 | 22 | 9,6 |
| N/A | 6 | 2,6 | 4 | 1,7 | 19 | 8,3 | 3 | 1,3 | 32 | 14 |
| <i>Total</i> | 66 | 28,9 | 54 | 23,6 | 104 | 46,6 | 4 | 1,7 | 228 | 100 |

Table 2. Types of fabric among the main three Iron Age wares.

| Surface Treatment | BPW | | GRW | | PW | | <i>Total</i> | |
|-------------------|--------|------|--------|------|--------|------|--------------|------|
| | Sherds | % | Sherds | % | Sherds | % | Sherds | % |
| Slip | 25 | 10,9 | 30 | 13,1 | 48 | 21 | 103 | 45,1 |
| Smoothing | 35 | 15,3 | 19 | 8,3 | 36 | 15,7 | 90 | 39,4 |
| Burnishing | 28 | 12,2 | 22 | 9,6 | 24 | 10,5 | 74 | 32,4 |
| Painted | 2 | 0,8 | 0 | 0 | 1 | 0,4 | 3 | 1,3 |
| Incision/excision | 7 | 3 | 7 | 3 | 0 | 0 | 14 | 6,1 |
| Applied | 1 | 0,4 | 2 | 0,8 | 0 | 0 | 3 | 1,3 |
| N/A | 6 | 2,6 | 4 | 1,7 | 19 | 8,3 | 29 | 12,7 |

Table 3. Surface treatments recognizable on the surface of the vessels of the main three ware Iron Age groups.

3.2.2. Discussion

As noticeable from our archaeological data dating to the Iron Age period, the best preserved context at Hirbemerdon Tepe belongs to the Early Iron Age Phase (i.e., Phase IVA, ca. 1050-900 BC). For example, the information gathered from the ‘bakery’ context in Area D gives us a clear perception of the ceramic production belonging to this Early Iron Age phase, whereas the pottery from the subsequent phase IVB (i.e., the Neo-Assyrian phase, ca. 900-610 BC) was much more difficult to identify due to the disturbed and incoherent nature of the context.

Bearing these factors in mind, the pottery analysis of the Iron Age at Hirbemerdon Tepe produced three large groups of pottery (i.e., BPW and GRW for Phase IVA, and PW

for Phase IVB). For the earlier phase, the pottery assemblage shows clear local elements of production in which the predominance of the Grooved Ware assemblage and of a burnished version of the Brown/Pink Ware indicates strong links with other regions in eastern and southeastern Anatolia. Moreover, the pottery production of the Early Iron Age is marked by the predominance of large cauldrons without necks (i.e., hole-mouth jars) that are burnished and have some sort of decoration along the rim area.

In terms of the origin of the Grooved Ware, it is possible to identify earlier versions within the northeastern regions during the Late Bronze Age to Early Iron Age transitional period, such as Transcaucasia (Avetisyan 2008, fig. 44 n. 3, 8; Sorokin 1958, no. 2, 149 ff., fig. 2/1 - 3) and Iran (Brown 1948, fig. 36/643, 915 - 39/23). Even though these types are different from those found in eastern Anatolian, they can be considered as earlier examples of containers that will then spread into Anatolia during the Early Iron Age. However, the main examples of the Grooved Ware belongs to the mid-12th to the end-10th century period and from an area stretching from the Malatya-Elaziğ region to the west, at least the Erzurum region to the north, Transcaucasia to the north-east, the Lake Urmia area to the east and the middle Euphrates river to the south. The Van region is interested by this ware as well, from or until the Middle Iron Age, although the chronological attribution is under debate (Konyar 2005; Köroğlu and Konyar 2008). Within this perspective, it is interesting to notice that the distribution of the Grooved Ware assemblage corresponds to a specific region that, according to early Assyrian royal inscriptions (for example those of Tiglath-Pileser I, Radner 2006) would correspond to the 'lands of Nairi' (Roaf and Schachner 2005). Thus, the archaeological data show a clear link with the historical sources in which the Assyrian kings mention alliances among small local kingdoms in the area against their troops.

The presence of Grooved Ware in numerous archaeological contexts in eastern Anatolia continues within the Middle Iron Age (e.g., Bartl 2001, p. 391; Konyar 2005 p. 2; Sevin 1991, p. 95; Köroğlu 2003, p. 233; Parker 2001, p. 232ff.). Moving towards the end the 9th century, the official presence of Neo-Assyrian groups in the area changes dramatically the pottery production, too. At Hirbemerdon Tepe, the Grooved Ware assemblage slowly disappears or it may have been substituted by a newer version. As with similar cited sites, Grooved Ware perhaps shows a sort of legacy during the Neo-Assyrian period. Many types at Hirbemerdon Tepe contain variations that may have been produced during the transition to the new phase or during the Middle Iron Age. While fabrics are similar to the classic Grooved Ware, forms are mostly of an open nature with tapered rims and characterized by slip and clay primarily of pink shades of color. It is during this phase that we find typical Neo-Assyrian pottery examples produced at a local level (e.g., the PW) using surface treatment techniques (e.g., burnishing) that are linked to an Anatolian tradition (Matney *et al.* 2007). Thus, the Neo-Assyrian presence in the area transformed the type of production without disentangling the local potters from their traditional way of 'making' the vessels.

4. Conclusions

As seen from the archaeological data at our disposal, the Iron Age phase at Hirbmerdon Tepe is marked by a transformation in the settlement pattern with the settlement of the Early Iron Age (Phase IVA, ca. 1050-900 BC) located both in the northern and southern sectors of the High Mound; whereas, in the following period (Phase IVB, ca. 900-600 BC) the architecture in the High Mound is abandoned and the area is probably transformed into temporary encampments used by nomadic or transhumant groups. Furthermore, the Early Iron Age period appears to have been marked by specialized areas dedicated to food-processing (in Area D where part of a ‘bakery’ was uncovered) that are neatly separated from the residential neighbourhoods (Area A and Step trench AC). During the later Neo-Assyrian phase, the working activities (and particularly food-processing) are transferred to the Outer Town probably for easier access to the agricultural resources located within the river terraces, and the High Mound is instead distinguished by temporary settlements and numerous garbage pits. Due to its geographical location (i.e., at the crossroad between river terraces and uplands), a combined subsistence economy that incorporates both pastoral and agricultural strategies has been predominant at the site and its surrounding region (Ur and Hammer 2009). In fact, the importance of pastoral activities is still recognizable in the Diyarbakır region where winter pasturelands (*kışlak*) of non-sedentary groups were in common use for at least two millennia and possibly much longer (*ibid.* 2009: 4) and these temporary encampments have been constant features in the region’s landscape.

This dramatic transformation in the settlement pattern is coupled with pottery production, with a slow, but recurrent abandonment in the use of the Grooved Ware assemblage during the Neo-Assyrian period. As conceivable from the historical sources, these changes are probably related to the Imperial strategies brought to the area by the Assyrians starting from the beginning of the IX century BC in the attempt to re-organize the region according to their political and economic needs. Changes in the socioeconomic landscape of the region are also confirmed by an increase in the quantity of the settled area as well as by the creation of large urban centres (e.g., Ziyaret Tepe/Tuşhan and Uçtepe/Tidu) that made their first appearance in the region after millennia marked by the constant presence of small-to-medium sized settlements (Parker 2001: 211).

The imposition of this new socio-political landscape by the Neo-Assyrians brought to a halt local cultural traditions that are epitomized by the production of the distinctive Grooved Ware that characterized the pottery production of a wide area including most of eastern Anatolia during the Early Iron Age. According to the earlier historical Assyrian texts (for example Tiglath-Pileser I during the 12th century BC), during the Early Iron Age period this area was considered as the ‘lands of Nairi’ and was fragmented into a series of small local kingdoms that united against the attacks of the Assyrians.

In conclusion, the study of the Iron Age levels at Hirbmerdon Tepe has contributed to a better understanding of the changes which occurred in the upper Tigris river region during the Iron Age period (i.e., from locally organized groups during the Early Iron Age to a complex system of central organization imposed by the Assyrian kings during the Neo-Assyrian period). In so doing, a diachronic perspective on the

transformation of the material culture appears to be the most effective investigating strategy to understand social and economic changes in ancient times.

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APPENDIX: POTTERY CATALOGUE OF THE IRON AGE PERIOD (FIGS. 10-21)

| Nr | ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|------|--|-----------------------------|--|--|---|
| 001 | 15 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 6/4 light brown | Medium mineral sand, grit, mica | Slip Burnishing |
| 002 | 18 | GRW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 6/4 light brown to 7.5YR 5/1 gray | Medium mineral sand, grit, mica | Slip |
| 003 | 24 | BPW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium vegetal chaff, grit, limestone, sand, mica | Smoothing |
| 004 | 28 | BPW | 7.5YR 8/3 pink | 7.5YR 8/3 pink | 7.5YR 8/3 pink | Medium vegetal chaff, sand, limestone, grit, mica | Smoothing |
| 005 | 29 | BPW | N/A | N/A | N/A | N/A | Excised decoration |
| 006 | 40 | BPW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium-coarse vegetal chaff, limestone, grit, sand, mica | Smoothing |
| 007 | 25 | GRW | 7.5YR 7/4 pink | 6/4 light brown | 7.5YR 7/4 pink | Medium vegetal chaff, sand, limestone, mica | Smoothing Burnishing Fingernail incisions |
| 008 | 25 | GRW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | Medium vegetal chaff, sand, grit, mica | Smoothing Burnishing |
| 009 | 25 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium vegetal chaff, sand, limestone, grit, mica | Smoothing |
| 010 | 25 | GRW | N/A | N/A | N/A | N/A | N/A |
| 011 | 37 | GRW | 7.5YR 7/3 pink to 10YR 3/1 very dark gray (burned) | 7.5YR 7/3 pink | 7.5YR 3/1 very dark gray | Medium mineral sand, grit, mica | Slip Burnishing |
| 012 | 30 | GRW | 7.5YR 7/2 pinkish gray | 7.5YR 7/2 pinkish gray | out to 7.5YR 5/1 gray | Medium vegetal chaff, sand, grit, mica | Slip |
| 013 | 30 | GRW | 5YR 6/4 light reddish brown | 7.5YR 6/4 light brown | out to 7.5YR 7/4 pink to in | Medium mineral sand, chaff, grit, limestone, mica | Slip |
| 014 | 33 | GRW | 7.5YR 6/3 light brown | 7.5YR 7/3 pink | out to 7.5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Slip |
| 015 | 45 | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 6/6 reddish yellow to 5/1 gray | Medium vegetal chaff, sand, limestone, grit, mica | Slip |
| 016 | N/A | GRW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 7.5YR 6/3 light brown to 7.5YR 4/1 dark gray | Medium mineral sand, limestone, grit, chaff, mica | Slip Burnishing |
| 017 | 20 | GRW | N/A | N/A | N/A | N/A | N/A |
| 018 | N/A | GRW | N/A | N/A | N/A | N/A | N/A |
| 019 | 25 | GRW | 5YR 6/4 light reddish brown | 5YR 7/6 reddish yellow | out to 5YR 4/1 dark gray to in | Medium vegetal chaff, sand, limestone, mica | Slip (inside) |
| 020 | 25 | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | out to 7.5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Slip Slight burnishing |
| 021 | 30 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 6/2 pinkish gray | Medium vegetal chaff, sand, grit, mica | Slip |
| 022 | 30 | GRW | 7.5YR 7/2 pinkish gray | 7.5YR 6/3 light brown | 7.5YR 7/6 reddish yellow | Medium mineral sand, grit, chaff, mica | Slip |
| 023 | N/A | GRW | N/A | N/A | N/A | N/A | N/A |
| 024 | 35 | GRW | 7.5YR 8/3 pink | 7.5YR 8/3 pink | 7.5YR 8/3 pink | Medium-coarse vegetal chaff, sand, grit, some mica | Smoothing |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|--------|--|--|---|---|----------------------------|
| 025 | 35 | GRW | 5YR 7/4 pink | 6/6 reddish yellow to 5/1 gray | 5YR 7/4 pink | Medium vegetal chaff, sand, limestone, grit, mica | Slip Fishbone excisions |
| 026 | 35 | GRW | 7.5YR 6/4 light brown | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Slip Burnishing |
| 027 | 40 | GRW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | Medium vegetal chaff, limestone, grit, sand, mica | Slip Slight Burnishing |
| 028 | 17 | GRW | 7.5YR 6/3 light brown | 7.5YR 4/2 brown (burned) | 7.5YR 6/3 light brown | Medium-coarse mineral sand, limestone, grit, mica | Slip |
| 029 | 20 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 6/3 light brown to 7.5YR 6/1 gray | Medium mineral sand, grit, chaff, mica | Slip |
| 030 | 21 | BPW | N/A | N/A | N/A | N/A | N/A |
| 031 | 9 | BPW | 5YR 7/4 pink | 5YR 7/4 pink | 5/6 yellowish red | Medium mineral sand, chaff, limestone, grit, mica | Slip |
| 032 | 15 | BPW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5/6 yellowish red | Medium mineral sand, chaff, grit, limestone, mica | Slip |
| 033 | 16 | BPW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 5/6 yellowish red to 5YR 4/1 dark gray | Medium mineral sand, chaff, grit, limestone, mica | Slip Incised wavy line |
| 034 | 30 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, limestone, mica, some grit | Slip Burnishing |
| 035 | 41 | PW | 5YR 6/4 light reddish brown | 5YR 6/6 reddish yellow | 7.5YR 5/4 brown | Medium mineral sand, grit, limestone, chaff, mica | Slip Burnishing |
| 036 | 45 | BPW | N/A | N/A | N/A | N/A | N/A |
| 037 | 35 | PW | 5YR 8/3 pink | 5YR 8/3 pink | 7.5YR 6/4 light brown | Medium-fine mineral sand, limestone, grit, mica | Slip |
| 038 | 15 | BPW | 10YR 7/3 very pale brown | 10YR 7/3 very pale brown | 7.5YR 6/3 light brown | Medium mineral sand, grit, mica | Slip Burnishing |
| 039 | N/A | BPW CP | 7.5YR 7/3 pink to 7.5YR 6/3 light brown | 7.5YR 7/3 pink | 7.5YR 5/3 brown | Medium mineral sand, limestone, grit, mica | Slip |
| 040 | 21 | BPW CP | 7.5YR 6/3 light brown | 7.5YR 7/4 pink | 7.5YR 5/3 brown | Medium mineral sand, grit, mica | Slip Burnishing |
| 041 | 25 | PW | 7.5YR 7/3 pink to 7.5YR 6/4 light brown | 7.5YR 7/3 pink to 5YR 6/6 reddish yellow (few strokes) | 5YR 6/4 light reddish brown to 5YR 7/6 reddish yellow | Medium-fine mineral sand, chaff, grit, limestone, mica | Slip |
| 042 | 30 | BPW | 5YR 6/4 light reddish brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown to 7.5YR 5/3 brown | Medium vegetal chaff, sand, limestone, less than grit, mica | Slip Strong burnishing |
| 043 | 33 | BPW CP | 5YR 6/2 pinkish gray to 7.5YR 7/2 pinkish gray | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray to in | Medium mineral sand, grit, limestone, chaff, mica | Slip |
| 044 | 12 | GRW | pink | pink | pink | Medium mineral sand, chaff, limestone, grit, mica | Smoothing |
| 045 | 13 | BPW | N/A | N/A | N/A | N/A | N/A |
| 046 | 13 | GRW | 5YR 7/3 pink | 5YR 7/3 pink | 5YR 7/3 pink | Medium vegetal chaff, sand, grit, some limestone, mica | Smoothing |
| 047 | 13 | GRW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | out to 7.5YR 4/1 dark gray to in | Medium-coarse mineral sand, chaff, grit, mica | Slip |

| Nr | ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|----|------|---|---|---------------------------------------|--|-----------------------------|
| 048 | 25 | BPW | 7.5YR 6/4 light brown and 7.5 6/3 light brown | 7.5YR 5/4 brown | 2.5YR 3/1 dark reddish gray | Medium vegetal chaff, sand, limestone, mica | Slip Burnishing |
| 049 | 30 | BPW | pink | pink | pink | Medium mineral | Slip |
| 050 | 40 | BPW | light brown | light brown | brown to gray | Medium vegetal chaff, sand, limestone, mica | Traces of strong burnishing |
| 051 | 65 | PW | 7.5YR 8/3 pink | 7.5YR 8/3 pink | 7.5YR 8/3 pink | Medium-coarse vegetal – chaff, sand, limestone, mica | Smoothing |
| 052 | 40 | PW | 7.5YR 7/2 pinkish gray | 7.5YR 7/3 pink | 7.5YR 8/4 pink | Medium mineral sand, chaff, limestone, mica | Slip |
| 053 | 30 | PW | 5YR 6/4 light reddish brown | 7.5YR 7/4 pink to 7.5YR 6/4 light reddish brown | out to 5YR 4/1 dark gray to in | Medium-coarse mineral sand, chaff, limestone, grit, mica | Slip |
| 054 | 27 | PW | N/A | N/A | N/A | N/A | N/A |
| 055 | 32 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 5/1 gray | Medium-fine mineral sand, mica, chaff | Smoothing Burnishing |
| 056 | 26 | PW | N/A | N/A | N/A | N/A | N/A |
| 057 | 23 | PW | 7.5YR 6/4 light brown | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray | Medium mineral | Slip |
| 058 | 21 | PW | 7.5YR 8/3 pink | 7.5YR 8/3 pink | 7.5YR 8/4 pink | Medium mineral sand, grit, limestone, chaff, mica | Smoothing |
| 059 | 25 | PW | N/A | N/A | N/A | N/A | N/A |
| 060 | 50 | PW | 7.5YR 5/3 brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | Medium mineral sand, grit, chaff, mica | Smoothing Burnishing |
| 061 | 36 | PW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | out to 7.5YR 4/1 dark gray | Medium vegetal chaff, limestone, grit, sand, mica | Smoothing |
| 062 | 40 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 6/4 light brown | Medium-coarse vegetal chaff, sand, limestone, grit, mica | Slip |
| 063 | 30 | PW | N/A | N/A | N/A | N/A | N/A |
| 064 | 35 | PW | pink | pink | out to 7.5YR 6/1 gray | Medium mineral | Smoothing |
| 065 | 40 | PW | 7.5YR 6/3 light brown | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Slip |
| 066 | 36 | PW | pink | pink | out to 7.5YR 6/1 gray | Medium mineral | Smoothing |
| 067 | 40 | BPW | 10YR 8/3 very pale brown | 10YR 8/3 very pale brown | 10YR 8/3 very pale brown | Medium-coarse vegetal chaff, limestone, grit | Slip |
| 068 | 31 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray | Medium vegetal chaff, sand, grit, limestone, mica | Smoothing |
| 069 | 32 | BPW | 7.5YR 6/2 pinkish gray | 7.5YR 5/3 brown | out to 5YR 3/1 very dark gray | Medium vegetal chaff, sand, grit, mica | Slip Rim/body excisions |
| 070 | 30 | PW | N/A | N/A | N/A | N/A | N/A |
| 071 | 20 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 6/2 pinkish gray | Medium mineral sand, limestone, chaff, mica | Slip Burnishing |
| 072 | 30 | PW | 7.5YR 6/3 light brown | 7.5YR 6/4 light brown | out to 7.5YR 3/1 very dark gray to in | Medium vegetal chaff, sand, limestone, grit, mica | Smoothing |
| 073 | 30 | BPW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | Medium vegetal chaff, limestone, sand, mica, grit | Smoothing |
| 074 | 38 | BPW | 10YR 6/3 pale brown | 10YR 6/3 pale brown | 10YR 6/3 pale brown | Medium vegetal chaff, sand, mica | Smoothing Burnishing |

| Nr | ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|----------|---|--------------------------------|---|---|----------------------------------|
| 075 | 36 | BPW | 7.5YR 6/4 light brown | 10YR 7/3 very pale brown | 5YR 6/6 reddish yellow | Medium vegetal chaff, sand, grit, limestone, mica | Slip Burnishing |
| 076 | 20 | PW | 10YR 6/4 light yellowish brown | 10YR 6/4 light yellowish brown | 10YR 4/1 dark gray | Medium mineral sand, chaff, limestone, mica | Smoothing External burnishing |
| 077 | 30 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 6/5 reddish yellow | Medium mineral sand, chaff, limestone, mica | Slip |
| 078 | 31 | PW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/6 reddish yellow to 5YR 5/1 gray | Medium-fine mineral sand, mica, limestone | Slip |
| 079 | 35 | PW | 7.5YR 6/4 light brown | 7.5YR 7/4 pink | out to 7.5YR 4/1 dark gray | Medium fabric | Slip |
| 080 | 20 | BPW | 7.5YR 6/4 light brown | 7.5YR 7/4 pink | 7.5YR 6/4 light brown | Medium mineral sand, chaff, mica | Slip Burnishing |
| 081 | 30 | PW | pink | pale brown | N/A | N/A | N/A |
| 082 | 30 | PW | 7.5YR 7/4 pink and 7.5YR 6/4 light brown ridges | 7.5YR 7/4 pink | out to 7.5YR 5/2 brown | Medium mineral sand, grit, limestone, chaff, mica | Slip |
| 083 | 30 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to gray 5YR 6/1 | Medium vegetal chaff, limestone, mica, sand | Smoothing |
| 084 | 35 | PW | 5YR 6/6 light reddish brown | 5YR 6/6 light reddish brown | 5YR 6/6 light reddish brown to gray – light gray 7/N and gray 5/N - GLEY1 | Medium vegetal chaff, limestone, mica | Smoothing Slight burnishing |
| 085 | 37 | PW | 5YR 7/4 pink to 10YR 4/1 dark gray (burned) | 5YR 7/4 pink | 5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Smoothing Burnishing |
| 086 | 29 | PW | 7.5YR 7/3 pink | 7.5YR 7/4 pink | 7.5YR 5/1 gray | Medium mineral sand, limestone, mica | Smoothing Burnishing |
| 087 | N/A | PW | 10YR 6/6 light red | 10YR 6/6 light red | 7.5YR 7/6 reddish yellow to 7.5YR 5/1 gray | Medium vegetal chaff, sand, grit, limestone, mica | Slip |
| 088 | 34 | PW CP | 5YR 6/4 light reddish brown to 7.5YR 5/2 brown (burned) | 5YR 6/4 light reddish brown | 5YR 4/1 dark gray to in | Medium mineral sand, grit, limestone, mica | Smoothing Slight burnishing |
| 089 | 15 | PW | N/A | N/A | N/A | N/A | N/A |
| 090 | 20 | PW | 5YR 7/4 pink | 5YR 7/4 pink | 5YR 7/4 pink | Medium mineral sand, limestone, chaff, mica | Smoothing |
| 091 | 20 | PW | 5YR 7/4 pink | 5YR 7/4 pink | 5YR 5/3 reddish brown | Medium vegetal chaff, sand, mica | Slip Burnishing |
| 092 | 22 | PW | 5YR 6/6 reddish yellow | 6/4 light reddish brown | 5YR 6/6 reddish yellow | Medium mineral sand, chaff, mica, limestone, grit | Slip |
| 093 | 25 | PW | 7.5YR 7/3 pink | 7.5YR 6/4 light brown | out to 7.5YR 6/1 gray | Medium vegetal chaff, sand, limestone, mica, grit | Slip |
| 094 | 30 | PW | N/A | N/A | N/A | N/A | N/A |
| 095 | 31 | PW | N/A | N/A | N/A | N/A | N/A |
| 096 | 35 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 5YR 6/6 reddish yellow to 5YR 6/2 pinkish gray | Medium mineral sand, grit, chaff, mica | Slip |
| 097 | 35 | PW | 7.5YR 6/4 light brown | 10YR 7/3 very pale brown | 5YR 6/6 reddish yellow | Medium vegetal chaff, sand, grit, limestone, mica | Slip Burnishing |
| 098 | 45 | PW | 5YR 6/3 light reddish brown | 7.5YR 7/4 pink | 5YR 6/3 light reddish brown | N/A | Slip |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|------|-----------------------------|--|-----------------------------------|--|--|
| 099 | 21 | BPW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown to 7.5YR 3/1 very dark gray (burned) | out to 7.5YR 3/1 very dark gray | Medium mineral sand, grit, chaff, mica | Slip Burnishing Fingernail excisions |
| 100 | 25 | BPW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, grit, limestone, chaff, mica | Smoothing Rim incisions |
| 101 | 30 | BPW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 7/1 light gray to in | Medium mineral sand, chaff, grit, mica | Smoothing Slight burnishing Rim incisions |
| 102 | 38 | BPW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | Medium-fine mineral sand, limestone, chaff, mica | Smoothing Strong burnishing |
| 103 | 36 | BPW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | N/A | Medium vegetal chaff, mica sand | N/A |
| 104 | 30 | BPW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | Medium-fine mineral sand, limestone, chaff, mica | Smoothing Strong Burnishing |
| 105 | 43 | BPW | 7.5YR 6/3 light brown | 7.5YR 7/3 pink | 5YR 6/5 light reddish brown | Medium-fine mineral sand, limestone, chaff, mica, grit | Slip |
| 106 | 24 | PW | N/A | N/A | N/A | N/A | N/A |
| 107 | N/A | PW | N/A | N/A | N/A | N/A | N/A |
| 108 | 25 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 3/1 very dark gray | Medium mineral sand, grit, chaff, mica | Slip Burnishing |
| 109 | 27 | PW | N/A | N/A | N/A | N/A | N/A |
| 110 | 15 | BPW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium-coarse sand, grit, limestone, mica | Smoothing Burnishing |
| 111 | 17 | BPW | 7.5YR 5/2 brown | 7.5YR 5/2 brown | 7.5YR 5/2 brown | Medium-coarse sand, mica | Smoothing Slight burnishing |
| 112 | N/A | BPW | N/A | N/A | N/A | N/A | N/A |
| 113 | 25 | GRW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | Medium mineral sand, chaff, mica | Smoothing Burnishing |
| 114 | N/A | GRW | 5YR 6/4 light reddish brown | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium vegetal chaff, sand, limestone, grit, mica | Slip |
| 115 | 30 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, grit, chaff, mica | Smoothing Slight burnishing Fishbone incisions |
| 116 | 19 | GRW | 7.5YR 6/3 light brown | 7.5YR 7/4 pink | 7.5YR 6/3 light brown | Medium mineral sand, limestone, mica, grit | Slip Fingernail excisions |
| 117 | 20 | GRW | 5YR 7/4 pink | 5YR 7/4 pink | 5YR 7/4 pink | Medium-coarse vegetal chaff, sand, limestone, grit, mica | Smoothing Rope-shape impression |
| 118 | 25 | GRW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 6/4 light brown | Medium mineral sand, grit, mica | Slip |
| 119 | 35 | GRW | 5YR 6/4 light reddish brown | 5YR 7/4 pink and 5YR 6/2 pinkish gray | out to 5YR 5/1 gray | Medium vegetal chaff, sand, grit, limestone, mica | Slip |
| 120 | 45 | GRW | 7.5YR 7/4 pink | 6/3 light brown | Gley1 3/N very dark grey | Medium-coarse vegetal chaff, grit, limestone, mica | Slip |
| 121 | 11 | PW | 5YR 7/3 pink | 5YR 7/3 pink | 7.5YR 6/4 light brown | Medium vegetal chaff, sand, limestone, grit, mica | Slip |
| 122 | 9 | PW | pink | pink | light brown | Medium mineral sand, limestone, mica | Slip |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|----|------|--|--|--|---|---|
| 123 | 12 | PW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 5YR 6/6 reddish yellow to 5YR 5/1 gray | Medium mineral sand, grit, chaff, mica | Slip |
| 124 | 16 | PW | 5YR 7/4 pink | 5YR 7/4 pink | out to 5YR 6/2 pinkish gray | Medium mineral sand, limestone, chaff, mica | Slip |
| 125 | 22 | PW | 7.7YR 7/6 pink | 7.5YR 6/4 light brown | 7.5YR 6/1 gray | Medium mineral sand, limestone, chaff, mica | Slip |
| 126 | 22 | PW | 5YR 6/4 light reddish brown | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | Medium vegetal chaff, sand, limestone, grit, mica | Slip |
| 127 | 7 | BPW | light brown | light brown | light brown | Medium mineral sand, chaff, limestone, mica | Smoothing |
| 128 | 11 | BPW | 7.5YR 6/4 light brown to 7.5YR 4/1 dark gray | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown to 7.5YR 4/1 dark gray | Medium mineral sand, limestone, grit, mica | Slip Burnishing Painted festoon 7.5YR 4/2 brown |
| 129 | 13 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 6/4 light brown | Medium mineral | Slip Burnishing |
| 130 | 14 | PW | pink | pink | pink | Medium mineral sand, grit, chaff, mica | Smoothing Slight burnishing |
| 131 | 15 | PW | N/A | N/A | N/A | N/A | N/A |
| 132 | 20 | PW | pink | pink | out to pinkish gray | Medium mineral | Slip |
| 133 | 15 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 6/4 light brown | Medium mineral sand, limestone, chaff | Slip |
| 134 | 15 | PW | pink | pink | pink | Medium mineral | Smoothing |
| 135 | 17 | PW | 7.5YR 7/2 pinkish gray | 7.5YR 6/3 light brown | 7.5YR 7/2 pinkish gray | Medium vegetal chaff, sand, limestone, mica | Slip Burnishing (strong on top of rim) |
| 136 | 30 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium vegetal chaff, sand, mica | Smoothing |
| 137 | 25 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, grit, limestone, chaff, mica | Smoothing Burnishing (most on rim) |
| 138 | 30 | PW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 4/2 brown | Medium vegetal chaff, sand, limestone, mica, grit | Slip |
| 139 | 40 | PW | 7.5YR 6/2 pinkish gray to 5/3 brown | 7.5YR 6/3 light brown | 7.5YR 6/2 pinkish gray to 5/3 brown | Medium vegetal chaff, sand, limestone, grit, mica | Slip |
| 140 | 20 | PW | 5YR 6/2 pinkish gray | 5YR 6/2 pinkish gray to 5YR 6/4 light reddish brown | 5YR 5/3 reddish gray | Medium mineral sand, chaff, grit, limestone, mica | Slip Burnishing on rim |
| 141 | 25 | PW | N/A | N/A | N/A | N/A | N/A |
| 142 | 30 | PW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 5/1 gray | Medium mineral sand, chaff, mica | Smoothing |
| 143 | 35 | PW | 5YR 6/6 reddish yellow to 7.5YR 6/4 light brown and 7.5YR 4/2 brown (burned) | 5YR 6/6 reddish yellow to 7.5YR 6/4 light brown and 7.5YR 4/2 brown (burned) | out to 7.5YR 3/1 very dark gray | Medium mineral sand, limestone, grit, mica | Smoothing |
| 144 | 35 | PW | pink | pink | out to gray | Medium mineral sand, limestone, chaff, mica | Smoothing |
| 145 | 15 | PW | N/A | N/A | N/A | N/A | N/A |

| Nr | ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|-----------|--|---|---------------------------------|---|---|
| 146 | 15 | PW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | out to 7.5YR 3/1 very dark gray | Medium mineral sand, chaff, grit, mica | Smoothing Burnishing |
| 147 | 18 | PW | 10YR 7/3 very pale brown | 10YR 7/3 very pale brown | 5YR 7/6 reddish yellow | Medium mineral sand, limestone, chaff, mica | Slip |
| 148 | 20 | BPW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium mineral sand, limestone, chaff, mica | Smoothing Burnishing Impressions under rim |
| 149 | 25 | BPW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium mineral sand, limestone, chaff, mica | Smoothing Burnishing |
| 150 | 30 | BPW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/4 pink | Medium mineral sand, limestone, chaff, mica | Smoothing Incised rim |
| 151 | 15 | PW | N/A | N/A | N/A | N/A | N/A |
| 152 | 21 | PW | 7.5YR 6/2 pinkish gray | 7.5YR 6/2 pinkish gray | 7.5YR 6/2 pinkish gray | Medium mineral sand, limestone, grit, mica | Smoothing Depressions on and under rim |
| 153 | 35 | PW | 7.5YR 6/3 light brown to 10YR 4/1 dark gray | 7.5YR 6/3 light brown to 10YR 4/1 dark gray | 7.5YR 5/2 brown | Medium mineral sand, grit, mica | Slip Burnishing |
| 154 | 35 | PW | light brown | light brown | light brown | Medium mineral | Smoothing |
| 155 | 27 | BPW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/4 light red brown | Medium mineral sand, calcareous, mica | Smoothing |
| 156 | N/A | BPW | 7.5YR 5/3 brown | 7.5YR 6/4 light brown | 7.5YR 5/3 brown | Medium vegetal chaff, sand, limestone, mica | Smoothing |
| 157 | 34 | BPW | light brown | light brown | light brown | Medium mineral | Smoothing |
| 158 | 16 | BPW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | out to 7.5YR 5/2 brown | Medium-fine mineral sand, limestone, mica, chaff | Smoothing Burnishing Painted decoration (10R 4/6 red) |
| 159 | 30 | BPW | 5YR 6/4 light reddish brown | 5YR 6/6 reddish yellow | out to 5YR 5/1 gray | Medium vegetal chaff, sand, grit, limestone, mica | Slip |
| 160 | 33 | BPW | 2.5YR 6/4 light reddish brown | 2.5YR 6/4 light reddish brown | 7.5YR 5/1 Gray | Medium vegetal chaff, limestone, grit, sand, mica | Smoothing Burnishing on rim |
| 161 | 25 | BPW CP | 7.5YR 5/3 brown to 7.5YR 3/2 dark brown to 7.5YR 2.5/2 very dark brown | 7.5YR 3/2 dark brown to 7.5YR 2.5/2 very dark brown | 7.5YR 3/1 very dark gray | Medium-coarse mineral sand, limestone, grit, mica | Smoothing Burnishing |
| 162 | 38 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | out to 7.5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Smoothing |
| 163 | 15 | BPW CP | 7.5YR 5/3 brown | 7.5YR 5/3 brown | out to 7.5YR to 7.5YR 5/1 gray | Medium mineral sand, grit, mica | Smoothing Burnishing |
| 164 | 25 | GRW | 7.5YR 6/4 light brown to 7.5YR 5/3 brown to 7.5YR 4/2 brown | 7.5YR 6/4 light brown to 7.5YR 5/3 brown to 7.5YR 4/2 brown | 7.5YR 5/3 brown | Medium mineral sand, grit, mica | Smoothing Burnishing |
| 165 | 25 | BPW | N/A | N/A | N/A | Medium mineral | N/A |
| 166 | 20 | GRW | 5YR 5/4 reddish brown | 5YR 6/4 light reddish brown | out to 5YR 4/1 dark gray | Medium mineral sand, grit, mica | Smoothing Burnishing |
| 167 | 30 | GRW | 7.5YR 7/4 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium-coarse sand, chaff, limestone | Smoothing |
| 168 | N/A | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | Medium mineral sand, grit, chaff, mica | Smoothing Burnishing |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|-----|--------|--|---|--|--|---|
| 169 | 30 | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 5/1 gray to in | Medium-coarse mineral sand, grit, limestone, mica, chaff | Smoothing Strong burnishing |
| 170 | 35 | GRW | 5YR 6/2 pinkish gray | 7.5YR 6/1 gray to out | 7.5YR 5/1 gray to in | Medium vegetal chaff, sand, grit, limestone, mica | Slip – Rim and in burnishing Fish-bone excisions |
| 171 | N/A | GRW | 7.5YR 6/3 light brown | 7.5YR 7/4 pink | 7.5YR 4/1 dark gray | Medium mineral sand, grit, limestone, mica | Slip Slight burnishing Rope-shape band |
| 172 | 35 | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 5YR 5/3 reddish brown | Medium mineral sand, grit, limestone, mica | Slip Burnishing |
| 173 | 30 | BPW | 7.5YR 6/4 light brown | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, grit, mica, some limestone | Slip Burnishing |
| 174 | 30 | GRW | 5YR 6/2 pinkish gray | 5YR 6/2 pinkish gray | 5YR 6/3 light reddish brown | Medium-coarse mineral sand, limestone, grit, mica | Slip – Slight internal and rim burnishing Diagonal excisions Dot line |
| 175 | N/A | GRW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | Medium mineral sand, chaff, limestone, grit, mica | Smoothing Slight burnishing |
| 176 | 10 | GRW | 5YR 6/4 light reddish brown | 5YR 6/2 pinkish gray | N/A | Medium mineral sand, grit, mica, | Slip Burnishing |
| 177 | 20 | GRW | light brown | light brown | light brown | Medium mineral | Smoothing |
| 178 | - | GRW | 5YR 7/3 pink | 5YR 6/3 light reddish brown | out to 7.5YR 4/1 dark gray to in | Medium mineral sand, grit, chaff, mica | Slip Burnishing |
| 179 | 27 | GRW | reddish yellow | (completely burned) | yellow to reddish yellow | Medium mineral sand, grit, chaff, limestone, mica | Smoothing |
| 180 | 30 | GRW | 7.5YR 7/4 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium mineral sand, chaff, mica | Smoothing |
| 181 | 30 | GRW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 6/4 brown | Medium vegetal chaff, sand, grit, limestone, mica | Smoothing |
| 182 | N/A | GRW | 5YR 7/3 pink | 5YR 7/3 pink | 5YR 7/4 pink | Medium vegetal chaff, sand, limestone, grit, mica | Smoothing |
| 183 | 7 | BPW CP | 5YR 6/3 light reddish brown to 5YR 5/1 gray | 5YR 6/3 light reddish brown to 5YR 5/1 gray | out to in | Medium mineral sand, limestone, grit, mica | Smoothing |
| 184 | 8 | N/A | N/A | N/A | N/A | N/A | N/A |
| 185 | 10 | PW | 7.5YR 7/4 pink to 7.5YR 6/4 light brown | 7.5YR 7/4 pink | out to 7.5YR 5/1 gray | Medium vegetal chaff, sand, limestone, mica | Slip |
| 186 | 10 | N/A | N/A | N/A | N/A | N/A | N/A |
| 187 | 20 | PW | 7.5YR 7/4 pink | 7.5YR 7/3 pink | out to 7.5YR 4/1 dark gray | Medium vegetal chaff, sand, grit, mica | Smoothing |
| 188 | 7 | BPW | 5YR 6/4 light reddish brown to 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | out to 7.5YR 5/4 brown | Medium vegetal chaff, sand, limestone, mica | Smoothing |
| 189 | 9 | PW | 7.5YR 8/3 pink | 7.5YR 7/3 pink | 5YR 5/6 yellowish red to 5YR 6/4 light reddish brown | Medium-fine mineral sand, limestone, mica, chaff | Slip Burnishing |
| 190 | 15 | PW | 7.5YR 7/2 pinkish gray | 7.5YR 6/3 light brown | out to 7.5YR 4/1 dark gray to in | Medium mineral sand, grit, limestone, chaff, mica | Slip |
| 191 | 16 | PW | 5YR 6/4 light reddish brown | N/A | out to 5YR 4/1 dark gray | Medium vegetal chaff, sand, grit, mica | N/A |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|----|-----------|---|---|---|--|----------------------------------|
| 192 | 10 | PW | 7.5YR 8/4 pink | 7.5YR 8/4 pink | 7.5YR 7/4 pink | Medium-fine mineral sand, chaff, limestone, grit, mica | Smoothing |
| 193 | 4 | PW | 4123- 7.5YR 7/2 pinkish gray | 7.5YR 7/4 pink | 7.5YR 5/1 gray | Medium mineral sand, grit, chaff, mica | Slip |
| 194 | 13 | BPW | 7.5YR 7/3 pink to 7.5YR 4/1 dark gray | N/A | 5YR 5/4 reddish brown to 7.5YR 5/3 brown | Medium mineral sand, chaff, limestone, mica | Slip Burnishing |
| 195 | 14 | PW | 7.5YR 8/3 pink | 7.5YR 7/4 pink | 5YR 6/6 reddish yellow | Medium-fine mineral sand, chaff, mica | Slip |
| 196 | 5 | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | out to 7.5YR 6/2 pinkish gray | Medium mineral sand, grit, limestone, chaff, mica | Smoothing |
| 197 | 9 | PW | 7.5YR 6/4 light brown | 7.5YR 6/4 light brown | 7.5YR 3/1 very dark gray | Medium mineral sand, limestone, chaff, grit, mica | Smoothing |
| 198 | 11 | PW | N/A | N/A | N/A | N/A | N/A |
| 199 | 17 | PW | 7.5YR 6/3 light brown | 5YR 6/4 light reddish brown | in to 5YR 4/1 dark gray | Medium mineral sand, grit, chaff, mica | Slip |
| 200 | 5 | PW | 7.5YR 6/2 pinkish gray | 7.5YR 6/2 pinkish gray | 7.5YR 6/2 pinkish gray | Medium-fine mineral sand, limestone, grit, mica | Smoothing |
| 201 | 5 | PW | 7.5YR 6/4 light brown to 7.5YR 5/2 brown | 7.5YR 6/4 light brown | 7.5YR 6/6 reddish yellow to 7.5YR 5/2 brown | Medium-fine mineral sand, limestone, mica | Slip Strong burnishing |
| 202 | 6 | PW | N/A | N/A | N/A | N/A | N/A |
| 203 | 13 | PW | 5YR 6/4 light reddish brown to 5YR 7/2 pinkish gray | 7.5YR 6/3 light brown | 5Y 5/6 yellowish red | Medium-fine mineral sand, chaff, limestone, mica | Slip Burnishing |
| 204 | 20 | PW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 6/6 reddish yellow | Medium mineral sand, chaff, mica | Slip |
| 205 | - | BPW | 5YR 7/3 pink | 5YR 6/4 light reddish brown | in to 5YR 4/2 dark reddish gray | Medium mineral sand, limestone, grit, chaff, mica | Slip |
| 206 | - | BPW | pink | pink | very dark gray | Medium mineral | Smoothing |
| 207 | - | BPW | 5YR 7/4 pink to 5YR 6/6 reddish yellow | 5YR 7/4 pink to 5YR 6/6 reddish yellow | out to 5YR 4/1 dark gray | Medium vegetal sand, chaff, mica, grit | Smoothing |
| 208 | 25 | BPW | 7.5YR 6/3 light brown | 7.5YR 7/2 pinkish gray | 7.5YR 6/4 light brown | Medium mineral sand, grit, mica | Slip Burnishing |
| 209 | 20 | BPW | 7.5YR 5/2 brown to 7.5YR 5/3 brown | 7.5YR 6/3 light brown | 7.5YR 5/3 brown | Medium mineral sand, grit, limestone, mica | Smoothing Excisions on pot |
| 210 | 25 | BPW | 5YR 5/1 gray | 5YR 5/1 gray to 5YR 7/4 pink | in to out | Medium-coarse mineral sand, limestone, grit, mica | Smoothing Burnishing |
| 211 | - | BPW | 5YR 4/1 dark gray 5YR 6/2 pinkish gray and 5YR 5/1 gray | 5YR 4/1 dark gray 5YR 6/2 pinkish gray and 5YR 5/1 gray | 5YR 4/1 dark gray 5YR 6/2 pinkish gray and 5YR 5/1 gray | Medium-coarse mineral sand, grit, limestone | Smoothing |
| 212 | - | BPW | 5YR 5/1 gray | 5YR 5/1 gray to 5YR 7/4 pink | in to out | Medium-coarse mineral sand, limestone, grit, mica | Smoothing Burnished |
| 213 | - | BPW CP | 7.5YR 5/2 brown to 7.5YR 4/1 dark gray | 7.5YR 5/2 brown to 7.5YR 4/1 dark gray | 7.5YR 4/1 dark gray | Medium-coarse sand, grit | Slip Burnishing |
| 214 | 25 | BPW | 7.5YR 6/3 light brown | 10YR 6/3 pale brown | 7.5YR 5/3 brown to 7.5YR 6/2 pinkish gray | N/A | Smoothing External burnishing |
| 215 | - | BPW | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | 7.5YR 6/3 light brown | Medium mineral sand, grit, mica | Smoothing Burnishing |

| Nr | Ø | Ware | Color (out) | Color (in) | Color (sec) | Fabric | Surface Treatment |
|-----|---|------|---|-----------------------------|----------------------------------|--|---|
| 216 | - | PW | 7.5YR 7/3 pink | 7.5YR 7/3 pink | 7.5YR 7/3 pink | Medium mineral | Smoothing Rope-shape band |
| 217 | - | PW | 5YR 7/4 pink | 5YR 7/4 pink | 5YR 7/4 pink | Medium-coarse vegetal chaff, limestone, sand, grit, mica | Smoothing Rope-shape band |
| 218 | - | PW | 7.5YR 7/4 pink | 7.5YR 6/3 light brown | 7.5YR 4/1 dark gray | Medium mineral sand, chaff, limestone, grit, mica | Slip Rope-shape band |
| 219 | - | GRW | 7.5YR 7/3 pink | 6/4 light brown | 7.5YR 7/3 pink | Medium vegetal chaff, sand, limestone, grit, mica | Slip Burnishing Fish-bone incisions 2 rope-shape impressions 2 bosses |
| 220 | - | PW | 5YR 7/3 pink | 5YR 7/3 pink | 5YR 7/3 pink | Medium-coarse vegetal chaff, sand, limestone, mica | Smoothing Rope-shape band |
| 221 | - | PW | 7.5YR 7/3 pink | 7.5YR 6/2 pinkish gray | 7.5YR 7/3 pink | Medium vegetal chaff, sand, limestone, mica, grit | Slip Rope-shape band |
| 222 | - | BPW | 5YR 6/4 light reddish brown to 5YR 5/2 reddish gray | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | Medium mineral sand, chaff, limestone, grit, mica | Smoothing Rope-shape band |
| 223 | - | PW | 7.5YR 8/3 pink | 7.5YR 7/4 pink | 7.5YR 7/4 pink | Medium mineral sand, limestone, grit, mica | Smoothing External burnishing Rope-shape band |
| 224 | - | N/A | N/A burned | N/A burned | N/A burned | N/A burned | N/A burned |
| 225 | - | BPW | 5YR 6/4 light reddish brown | 10YR 4/2 dark grayish brown | 10YR 3/2 very dark grayish brown | Medium mineral sand, chaff, limestone, mica | Slip Appliqué band |
| 226 | - | BPW | 5YR 5/4 reddish brown | 5YR 5/4 reddish brown | 5YR 5/4 reddish brown | Medium vegetal chaff, sand, limestone, grit, mica | Smoothing Burnished |
| 227 | - | PW | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | 5YR 6/4 light reddish brown | Medium mineral sand, chaff, limestone, grit, mica | Smoothing Rope-shape band Painted bands |
| 228 | - | N/A | pink hues | pink hues | pink hues | Medium mineral | Fingerprints on some examples |

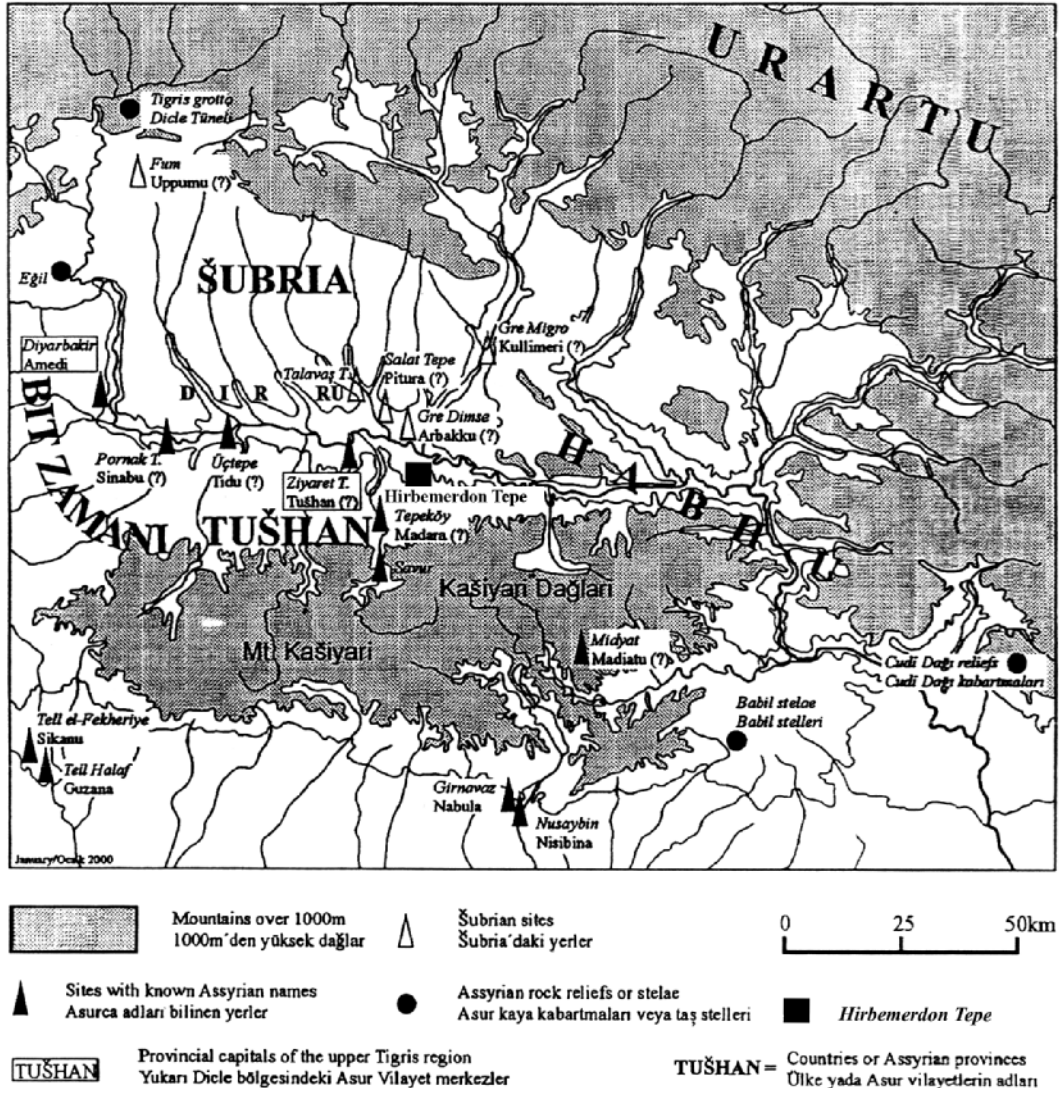


Figure 1. Map of the region showing the site of Hirbemerdon Tepe and other ancient toponyms in Akkadian (after Radner and Schachner 2001: Fig. 3).

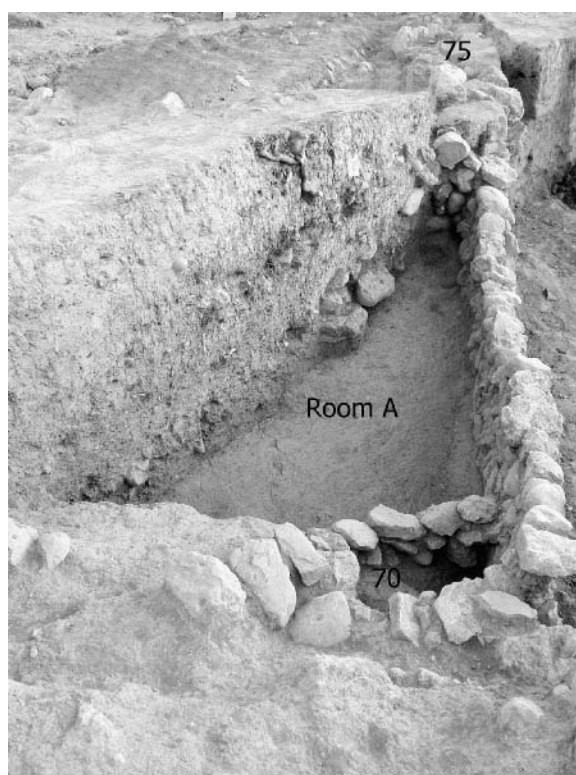


Figure 3. Photo of the Early Iron Age (Phase IVA) structures from Step Trench AC in the High Mound (view from south).

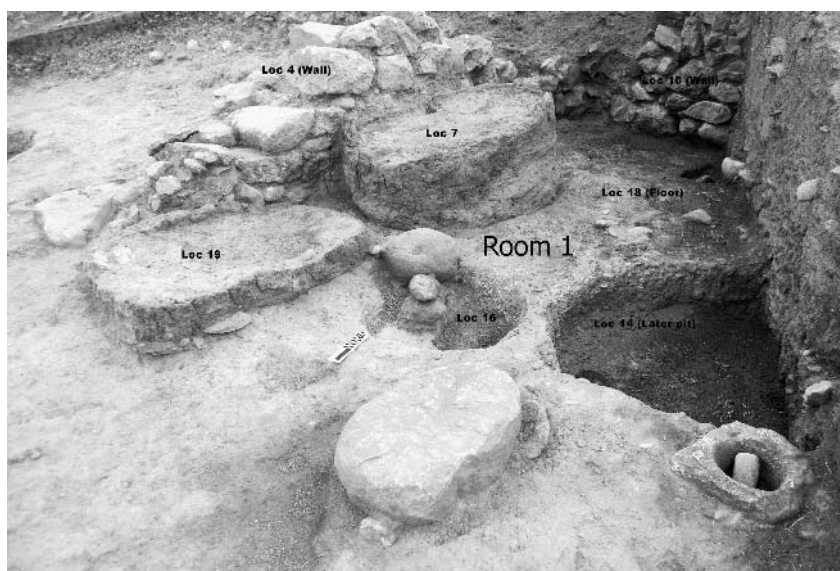


Figure 4. Photo of the Early Iron Age 'bakery' (Phase IVA) from Area D in the High Mound (view from south).

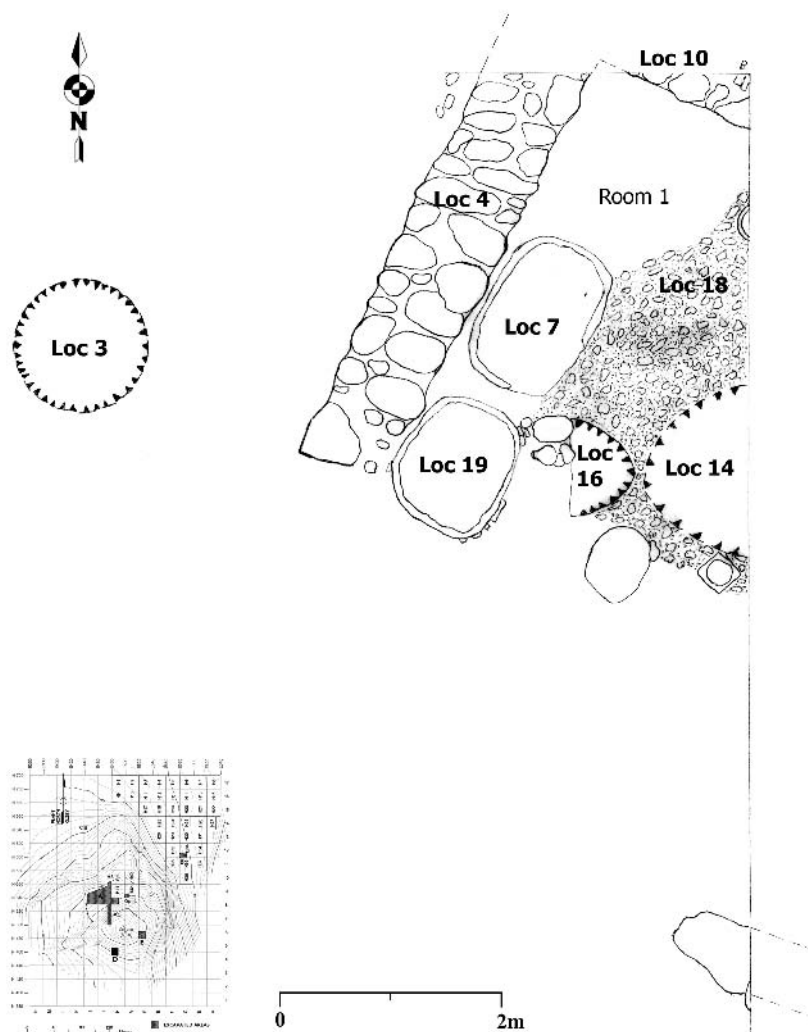


Figure 5. Map of the Early Iron Age phase from Area D.

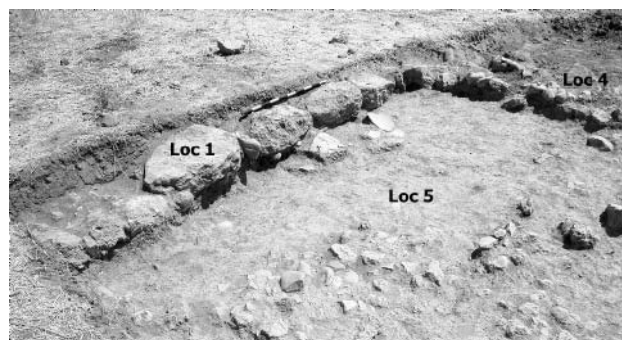


Figure 6. Photo of the excavated features of the Neo-Assyrian period (Phase IVB) from Area B in the Outer Town (view from west).

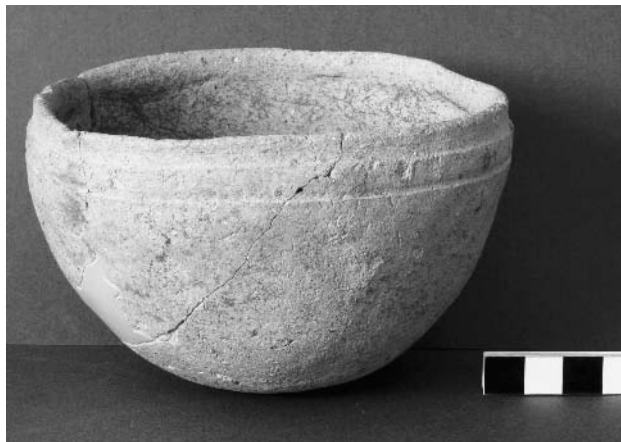


Figure 7. Bowl of the Grooved Ware (Phase IVA, Early Iron Age) found in situ in Area D.



Figure 8. Jug of the Brown/Pink Ware (Phase IVA, Early Iron Age) found in situ in Area D.



Figure 9. Grinding stones of the Neo-Assyrian period from Area B (Outer Town).

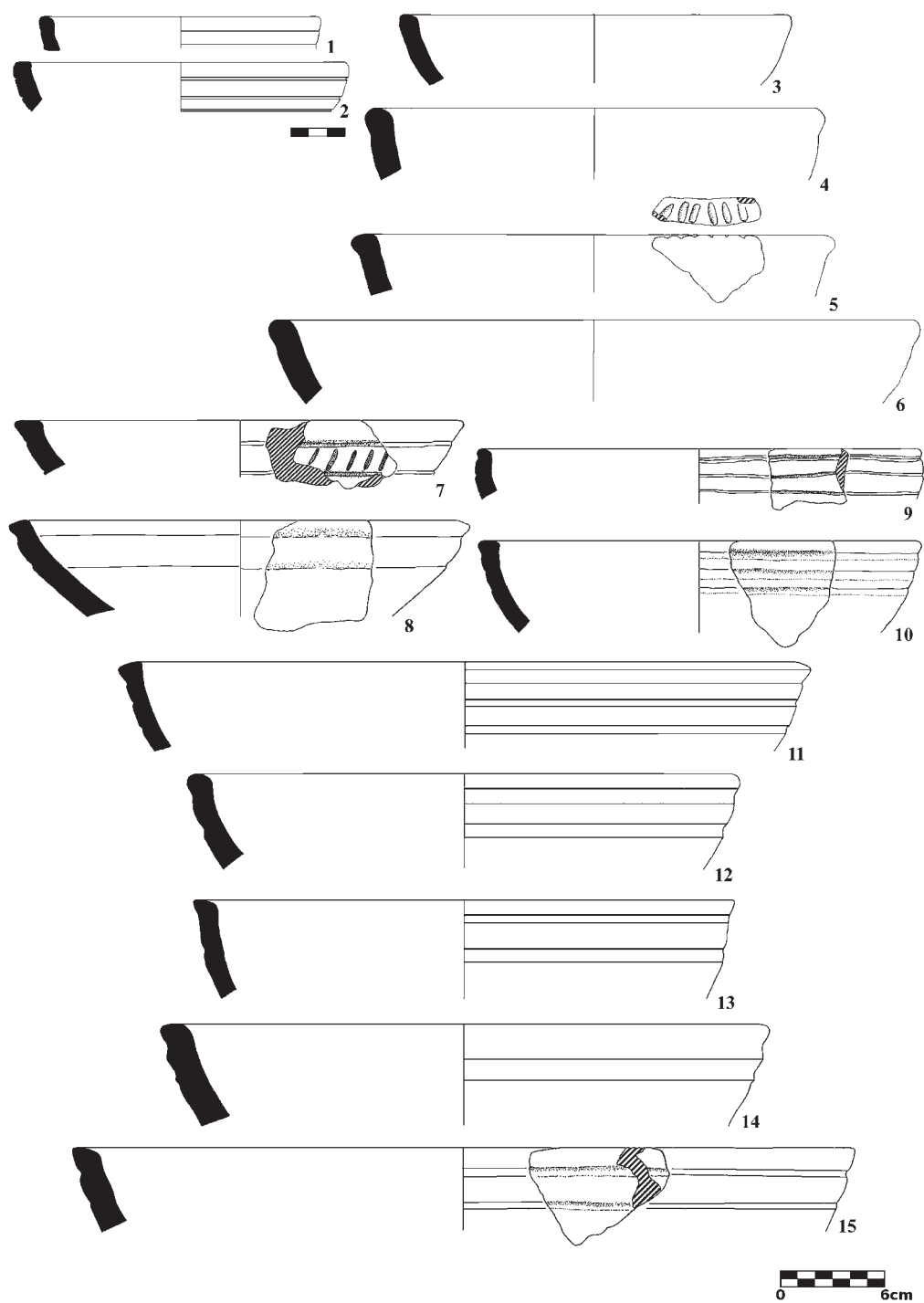


Figure 10. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 3-6); Grooved Ware (nr. 1, 2, 7-15).

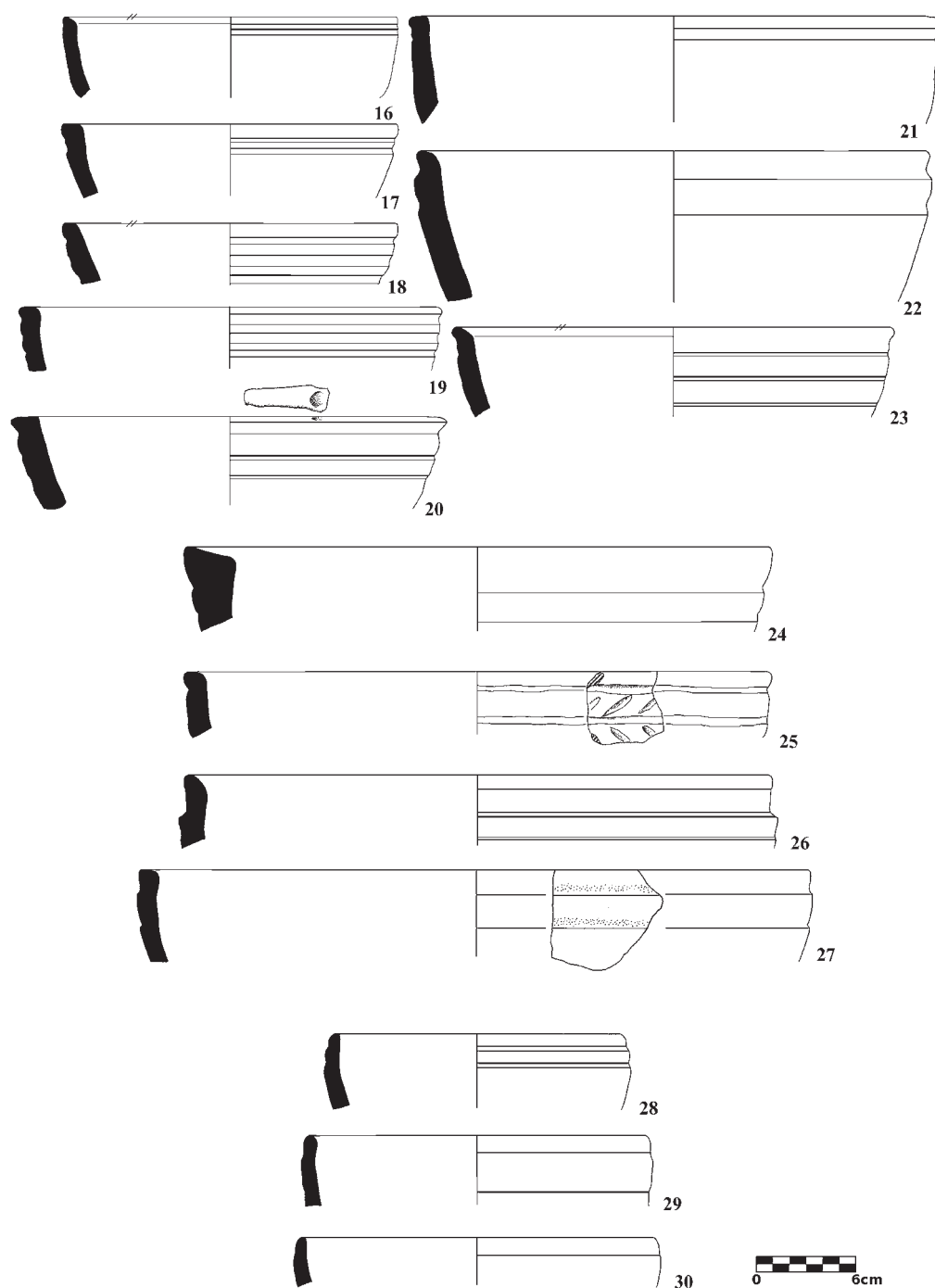


Figure 11. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 30); Grooved Ware (nr. 16-29).

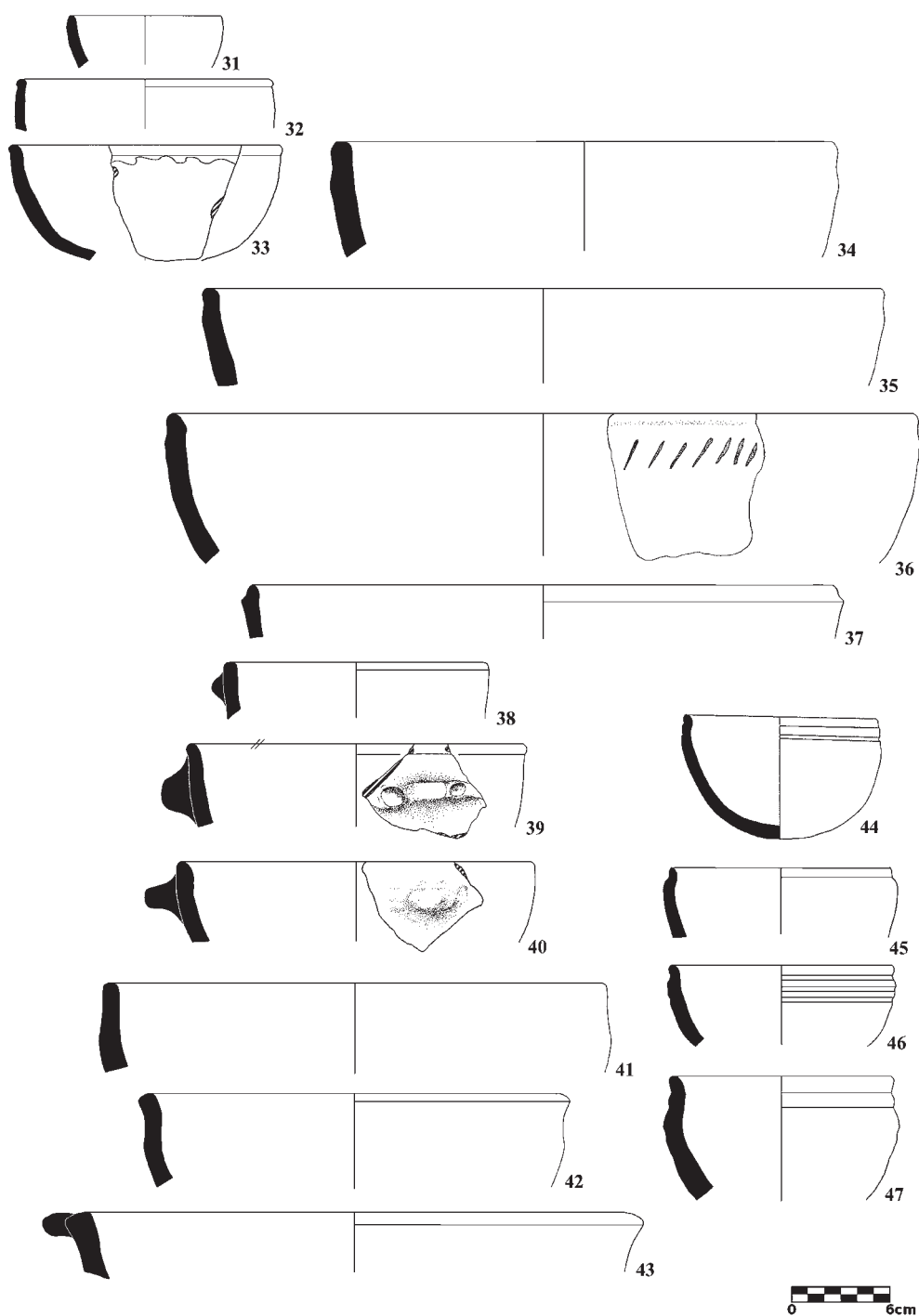


Figure 12. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 31-33, 36, 38-40, 42, 43); Grooved Ware (nr. 44, 46, 47); Plain Ware (nr. 34, 35, 37, 41).

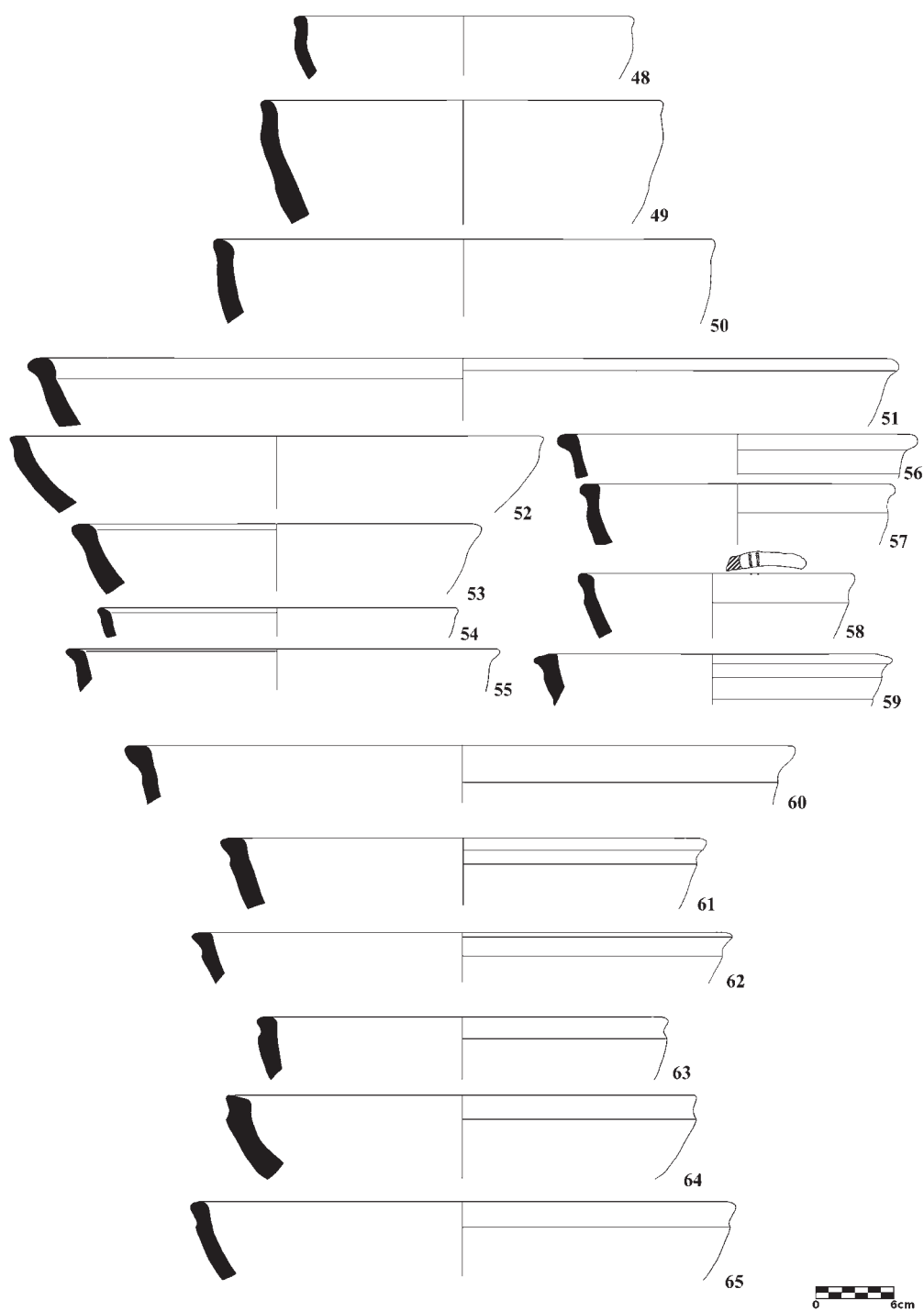


Figure 13. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 50); Plain Ware (nr. 51-65).

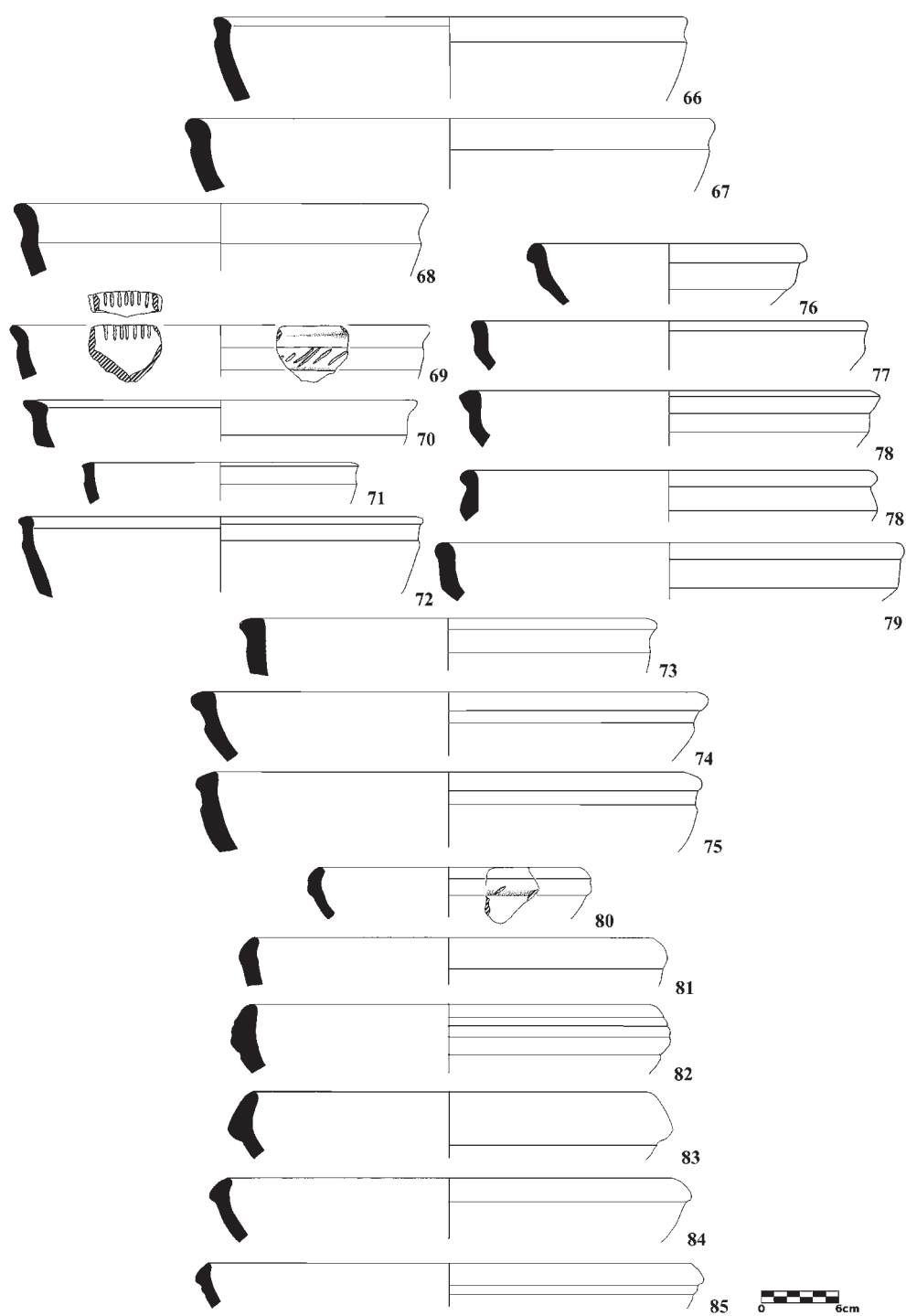


Figure 14. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 67, 69, 73-75); Plain Ware (nr. 66, 68, 70-72, 76-85).

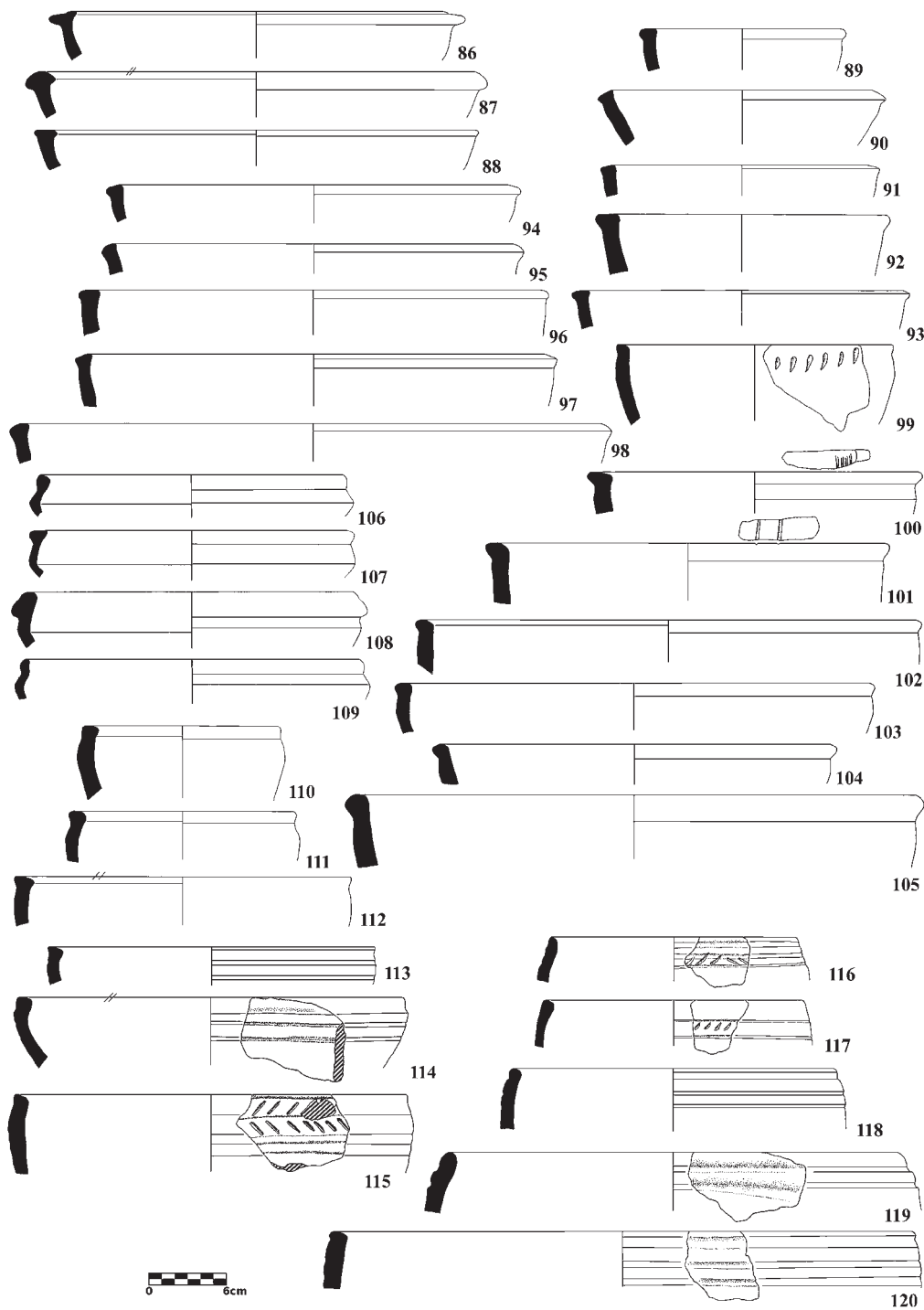


Figure 15. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 99-105, 110-112); Grooved Ware (nr. 113-129); Plain Ware (nr. 86-98, 106-109).

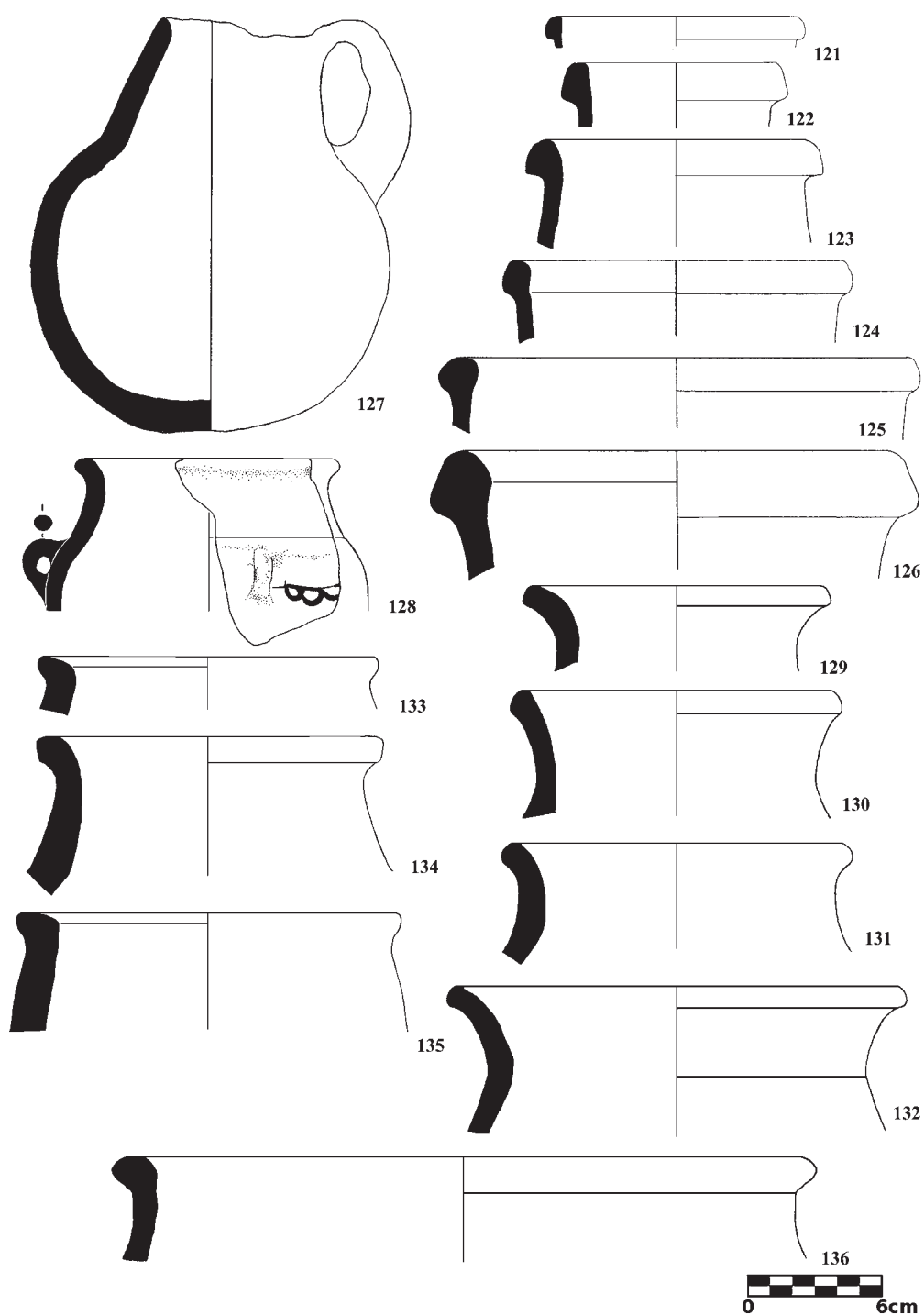


Figure 16. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 127, 128); Plain Ware (nr. 121-126, 129-136).

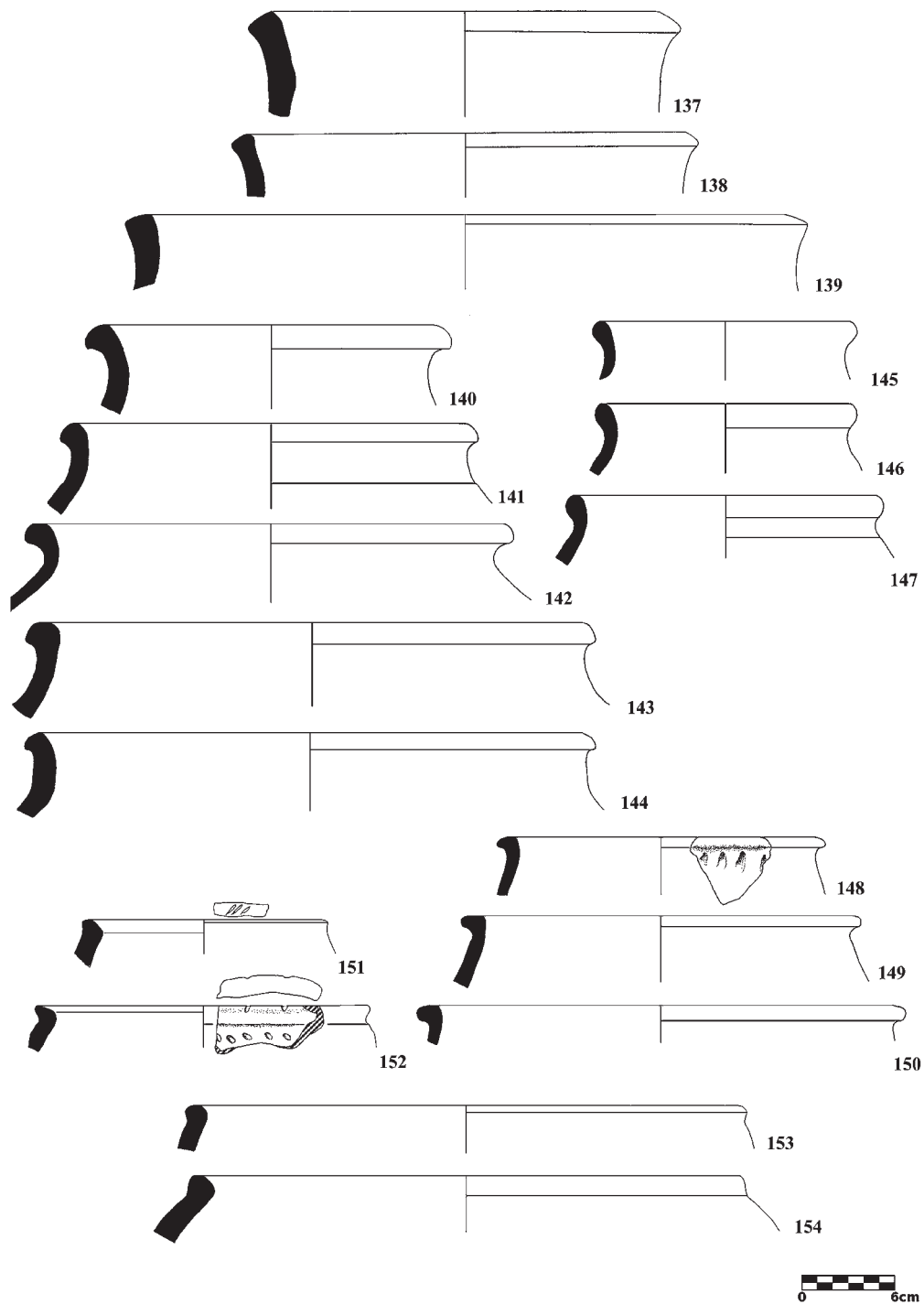


Figure 17. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 148-150); Plain Ware (nr. 137-147, 151-154).

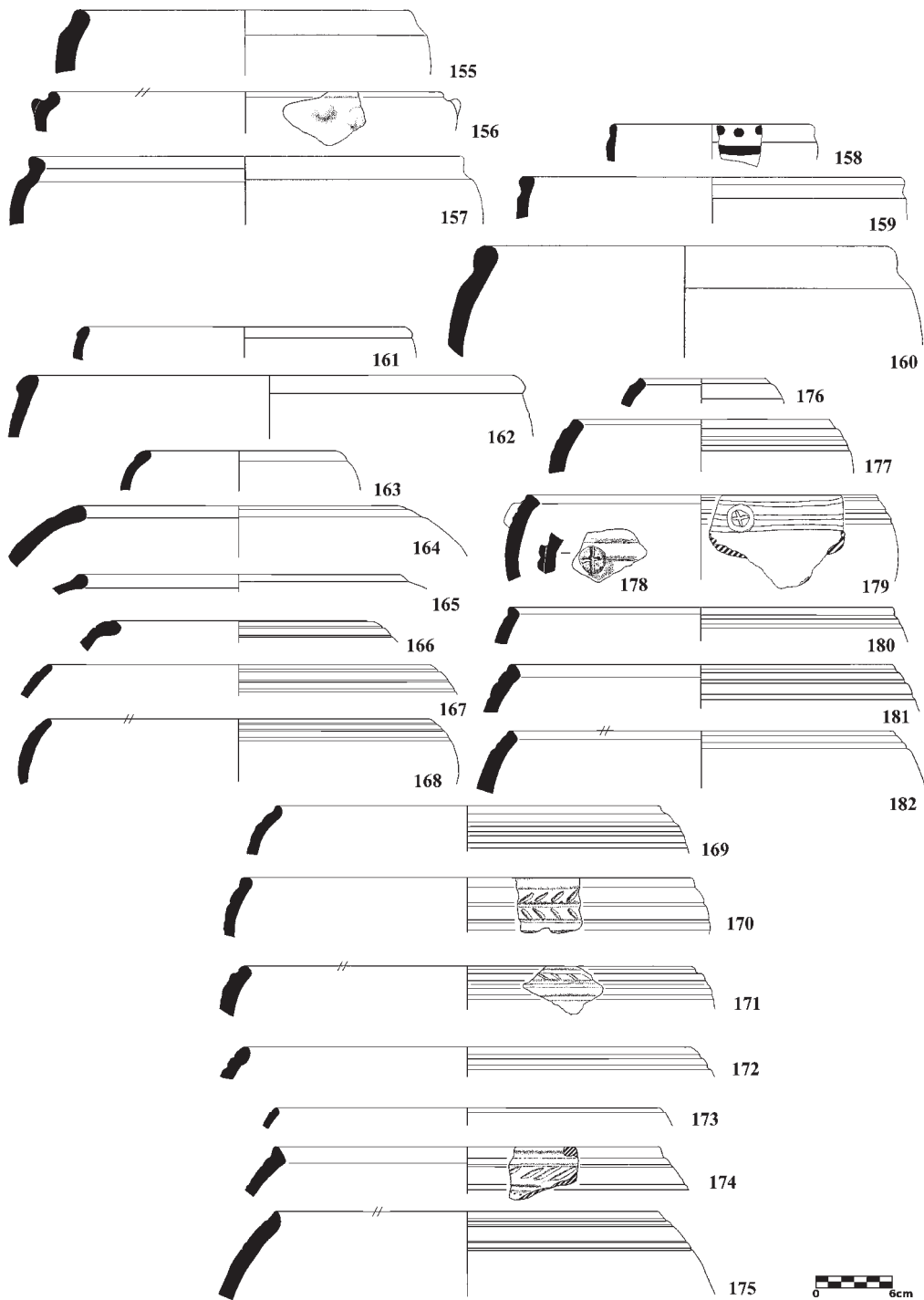


Figure 18. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 155-161, 163); Grooved Ware (nr. 164, 166-172, 174-182); Plain Ware (nr. 162).

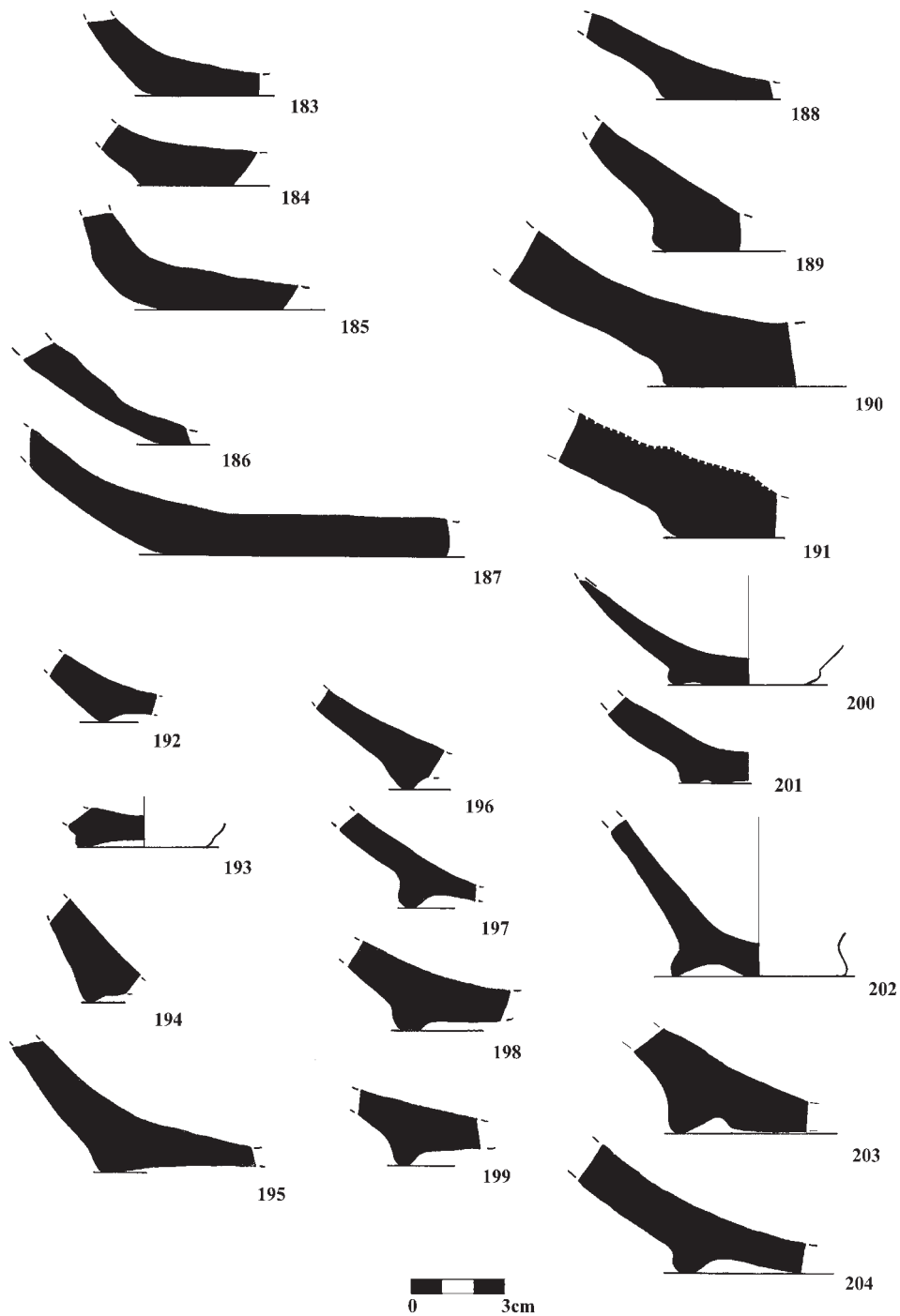


Figure 19. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 183, 188, 194); Plain Ware (nr. 185, 187, 189-193, 195-204).

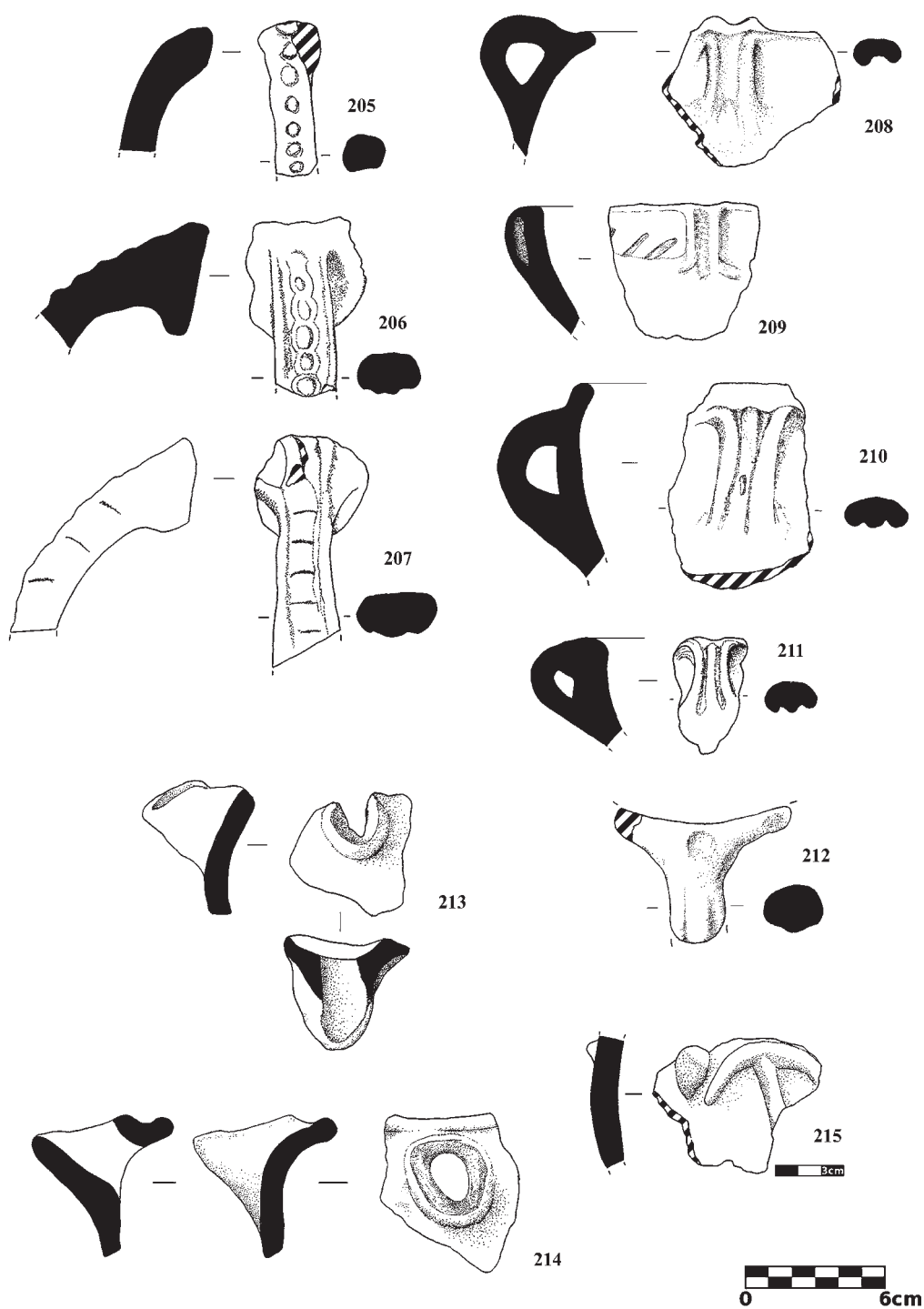


Figure 20. Drawings of pottery sherds of the Iron Age period. Brown/Pink Ware (nr. 205-215).

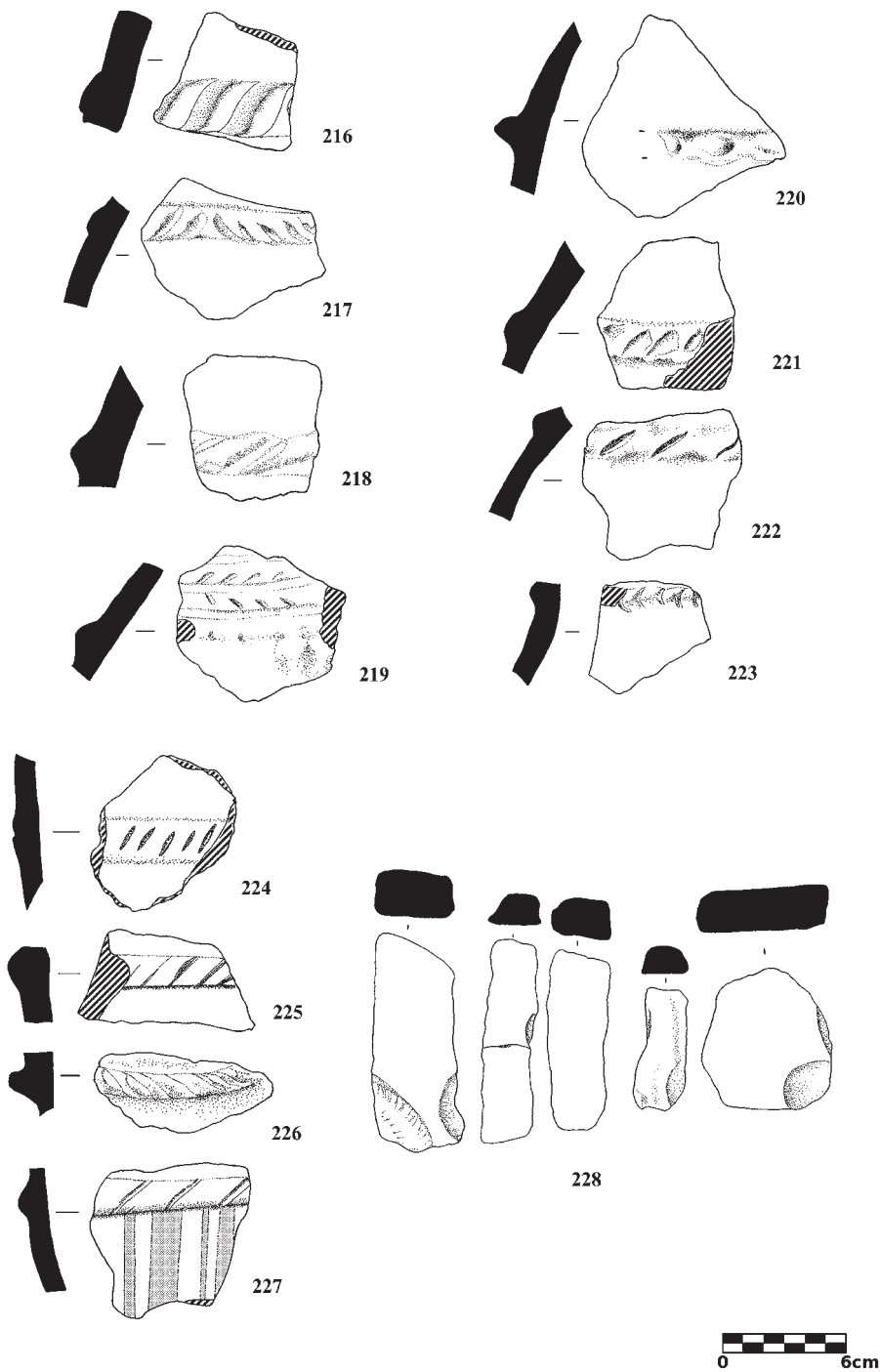


Figure 21. Drawings of pottery sherds of the Iron Age period.
Brown/Pink Ware (nr. 222, 225-227); Grooved Ware (nr. 219); Plain Ware (nr. 216-218, 220, 221, 223).

ÇADIR HÖYÜK: THE UPPER SOUTH SLOPE 2006-2009

Jennifer Ross *

OVERVIEW

The 2009 season represented the fourteenth season of excavation at Çadır Höyük. During that time we have made great strides in our pursuit of understanding Çadır's role in the history and development of culture in Central Anatolia.¹

We last reported on the general outlook for Çadır Höyük with a report on the state of the second millennium remains in *Anatolica* 32 (Gorny 2006a). Excavations at the site have continued since that time with interesting results in at least four different areas of investigation. These excavations have continued to demonstrate the richness of Çadır Höyük's material remains with exciting finds coming from nearly every period of its long occupation. This report will summarize the findings of investigations into the Iron Age levels of the Upper South Slope trench between the years 2006 and 2009 (with a one year hiatus in 2007).

Iron Age materials have been discovered in various areas at Çadır. The area with greatest Iron Age exposure is in trench 790.890, near the top of the southern slope of the mound, which will form the basis of most of the description that follows. But Iron Age ceramics, particularly belonging to the Middle and Late Iron, have also emerged near the top of the step trench on the east side of the mound, and on the north side, in trench 850.880. Iron Age inhabitants dug various pits further down the southern slope as well. It is likely that the construction of the Byzantine citadel removed significant portions of stone-built architecture of the Late Iron Age, in particular, so that the materials immediately underlying Byzantine strata have become mixed and impoverished. Enough architecture remains, however, that a partial reconstruction of the Late Iron occupation is possible.

Trench 790.890

Excavation in trench 790.890 began in 2001, with excavation of the western 5 x 10 m half of the overall 10 x 10 m trench. By the end of the 2005 season, this half of the trench had reached Early Iron Age levels, approximately 4 m deep. A small sounding (2 x 5 m) at the southern end of this side of 790.890, in 2006, provided another meter or so of Early Iron Age and Late Bronze (Hittite Empire) strata. On the eastern side of the 10 x 10, excavations began in 2005; by the end of the 2009 season, this side had been excavated to the same

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¹ I would like to thank the members of the Çadır excavation team, led by Ron Gorny, Greg McMahon, and Sharon Steadman, for their support of the work that produced this article, and their encouragement. Financial support for excavations in the Upper South Slope Trench has come from the Oriental Institute of the University of Chicago, SUNY-Cortland, and Hood College.

Early Iron Age level as the west side (Fig. 1). Excavations can now proceed, beginning in 2010, across the entire trench in phase.

Phasing here is predominantly based on cultural stratigraphy, with dating provided by ceramics (but see cautionary statements below); few C-14 samples have been available to provide dates.

EARLY IRON AGE

Two major building phases belonging to the Early Iron Age have been identified in excavation in 790.890 to this point, though the earlier phase has been excavated only in a very small area. The earlier phase is dominated by somewhat ephemeral architecture and by ceramics that are clearly in line with Hittite traditions, while the later Early Iron Age phase has more substantial architecture, and ceramics marked by transitional features between Hittite and Iron Age wares, technologies, and styles.

The **transitional Hittite-Early Iron Age** phase has been excavated in a limited area, at the southern end of the western 5 x 10 in trench 790.890; this was reached in a 5 x 2 m test sounding in 2006. There is some later disturbance to this section of the trench, where the Late Iron or Hellenistic “tumulus” (excavated in 2000) had cut through earlier layers on the slope. The sounding sits directly north of and above the Hittite empire period wall of 780.890, excavated in 1999.

In the sounding, excavations uncovered a series of plaster features, some associated with architecture and probably serving as surfaces and/or plastered features such as pits, and others of a more ephemeral nature, perhaps located in open areas where water erosion caused plaster to pool and dry. Supporting this interpretation is the fact that most of the plastered areas follow the slope of the mound’s surface southward.

At the base of the sounding, not fully excavated, was a northwest-southeast-running mudbrick wall (F74), associated with a thick plastered surface (F75) that had a layer of ash on top. These features were partially dug out by later construction, and so could not be followed further to the north. Above them were several thin layers of erosional fill, interspersed with ephemeral plaster layers and materials from a variety of periods, probably intentionally deposited to produce level ground for the next construction. The finds from these fill levels included Hittite pottery, a bone awl, the leg(?) of a clay animal figurine with impressions to indicate fur, and pottery of earlier phases including the Chalcolithic, Early Bronze Age, and Old Hittite period. At the top of the mixed fill was a relatively level layer of compact brown earth, 15-20 cm thick.

Above this, on the western side of the trench, a level plaster surface (F66) (sloping downward toward the north, the interior of the site, away from the natural slope of the mound) was associated with a poorly preserved, perhaps curving, mudbrick wall (F67). Although this feature was quickly absorbed into the north and west balks, it may be visible in the section to the south, above trench 780.890. If this is all part of the same feature, it appears to form a 2.8 m diameter area, edged by mudbrick walls or features. This group of features may be interpreted in various ways: as a semi-subterranean circular house, of a type

found also in Early Iron Age Gordion (YHSS 7B; Voigt and Henrickson 2000:42), or a large pit, perhaps with ritual function. A pair of postholes near the wall may define one side of a doorway, an element that could support an architectural interpretation. East of these features was a series of plaster-surfaced layers that seem to define outdoor surfaces, sloping down toward the south (the natural slope). Some of the plaster layers were yellow or greenish, with ash above or below, suggesting the dumping of domestic trash, or even use as an outdoor latrine. Above the entire set of features were several ephemeral plaster-lined pits, at least one containing a piece of burnt wood.

Near the top of the sounding was a north-south stone wall (F52) (or pit lining), with a plaster surface (F53) to the east. This area seems to have been disturbed at least twice, by the “tumulus/cist tomb” and by a Middle Iron Age pit (F51). West of the wall were additional fill layers that accumulated after the structure was filled in or abandoned.

In this approximately 1 m deep sounding, therefore, we uncovered at least three phases of architectural remains, though more precision in plan and interpretation will be possible only with fuller excavation.

Above the levels represented in the sounding, **Early Iron Age** architecture has now been cleared across the full 10 x 10 m trench. This sits atop a fill layer that probably represents leveling fill for construction, given the presence of stone wall F52 right below it. The architecture (Fig. 2) is defined by a set of stone foundations, running northwest-southeast (hereafter “north-south”) and southwest-northeast (hereafter “east-west”). Presumably a mudbrick wall sat atop these foundations. The major north-south walls are F36 and F37, in the center of the trench. These appear to form a nearly-continuous wall, with a 75 cm opening filled with smaller stones between them. This separation appears to delineate an entrance to the complex they define. F37 forms a right angle with F38+109, running toward the east, and 38+109 abuts north-south wall F110. This last is not a perfect join, though whether the problem was natural slippage, that F110 was added later, or stones were removed from the corner is not known. Along the southern face of F38+109 and western face of F110 is a 75 cm wide pebble paving or footing, F42+115.

The stone foundations of F38+109 and F110 appear to form two sides of a room, of which the southwestern and southeastern walls have fallen away with erosion of the mound’s slope, or were removed for later stone construction. The room they created would have measured at least 2 m east-west and at least 3 m north-south. The contents of the room consist of a number of brick-made and plaster-lined features, whose layout and preservation also suggest that a roof protected them. There are two phases of construction for these features. In the earlier of the two phases (Fig. 3), a compact layer of earth was laid atop the pebble feature, and then set into this was a mudbrick-built “box” or bin (F108), measuring 37.5 x 27 cm and about 5 cm deep. Directly south of this, using the southern bricks of F108 as its northern edge, was an oval plaster-lined feature (F107), sloping southward, with a mudbrick ledge delineating its south and west sides (F111). On the east side, it was built up against F110, the wall foundation stones. Just east of F108 and north of F111 was an area of compacted mudbrick, perhaps intentionally raised as a platform, with an unbaked clay loom weight embedded in it. The arrangement of features and finds does not immediately provide

a clear interpretation, but the loom weight suggests textile production. At the same time, a single loom weight does not allow us to reconstruct an entire loom in this room.

At some point during the Early Iron Age occupation, these features were filled in, and a new set of brick features was constructed above them. Above F108, the bin, was a second brick bin (F101), of larger size (1.5 x 1.05 m at its outer edges) and better preservation, so that the individual bricks were visible, set on their sides, a thick layer of mortar around them. Southwest of F101 was a second, smaller (1.05 x 0.4 m) brick-built feature (F104); it may have been too small to have functioned in the same way, and it is less well preserved, being closer to the edge of the mound.

Overall, this group of walls seems to define an enclosed space dedicated to some sort of work or storage. North and east of the “room” were compact earth layers that may be a sign of exterior surfaces. Just east of F110, the north-south wall at the eastern edge of the room, is a heavily burnt area; it is possible a piece of wood burned in place, or that this space was used for a fireplace or ephemeral cooking area. At the eastern edge of the trench was a portion of another wall or stone feature (F113); only excavation to the east will allow us to delineate it further.

On the western side of F36 and F37 was another exterior space, this one presumably outside the “complex” as a whole. Embedded in it, abutting F36 and 37, was a pair of 2 meter diameter plaster-lined features, F39 and F40, respectively. Their thickness is unknown, as they have not yet been excavated, but the plaster in them was quite loose and crumbly, and combined with ash and charcoal, as though they had stood exposed for a time.

Ceramics and other finds from the Early Iron Age

Pottery from the **transitional Hittite-Early Iron Age** levels includes wares and forms that show continuity from the Hittite period, and others that have been classified as “Early Iron” in style. Significantly, there are also modified sherds (see below) from these loci that were clearly brought up from earlier levels (or collected from the mound’s surface) and modified or “worked” in the Iron Age. These included sherds from Chalcolithic, Early Bronze Age, and Hittite vessels. Because of this intentional mixing, a practice that continued into later phases of the Iron Age, earlier vessels, particularly those of the Hittite period, may provide a skewed view of the ceramic production and styles of the Iron Age.

Despite the small size of the sounding into the transitional layer, a wide variety of pottery was discovered (Fig. 4; see Appendix for description of pottery). This includes both large and small vessels, and a large range of forms: bowls, jars, bottles, and holemouth jars. Wares range from yellow and brown to pink; a few were slipped, either red or white. There are some painted sherds, with motifs including parallel lines, pendant triangles, pendant concentric semi-circles, and tree patterns, as well as other designs that could not be defined. Paint was dark (red to brown to purple) on a lighter background, not usually slipped or burnished.

Vessels include Hittite forms such as platters and bottles and a faceted jar rim (Genz believes this to be an Early Iron Age trait; Genz 2004:24). An unusual vessel is a coilmade wide-mouthed jar, with squared-off rim, that has both horizontal and vertical burnished stripes; this uneven burnishing is atop a powdery white slip. There are both handmade and

wheelmade vessels, also indicative of transformations in the production methods and producers during this transitional phase.

The pottery coming from **Early Iron Age** strata (Fig. 5a, b) is primarily handmade with occasional wheel finish; forms include bowls and jars, with a few jug-type containers, and bearing monochrome paint, incision, or no decoration. Painted decoration includes crosshatched lines, zigzag and wavy lines, crosshatched triangles and lozenges, and asymmetrical line designs on handles; there are also some wide red stripes. Painted designs vary in quality and attention to detail and symmetry, perhaps suggesting a variety of potters or painters with varying levels of expertise. Rope impressions, fingernail impressions, and tool incision constitute the incised designs. As already noted, a small portion of the Early Iron ceramic assemblage has Hittite traits, especially in form, but the ware and often the surface treatment is “un-Hittite.” These include a white-slipped bottle rim, a flat-topped krater rim, a thin-walled cooking pot, and a horizontal square-sectioned handle made in a brick red ware. We speculate that some attempt to imitate, on a local level, the previously state-produced Hittite ceramics may have resulted in these odd hybrids.

At the same time, there is a clear move toward forms and wares that herald clearly Iron Age types. A variety of handmade vessels comes from these levels; these include jars, pithoi, and holmouth vessels. There are also S-shaped bowls, which presage a Middle Iron Age form; these are made from a brown-firing, fine clay, and are sometimes burnished.

Other finds from the Early Iron Age

As noted above, modified sherds occur in some quantity in these levels (and in every level belonging to the Iron Age); these are vessel fragments that have, sometimes, been chipped down to a regular shape (round, rectangular, or triangular) (Fig. 6a, b). Often, one edge (or more than one) is ground to smoothness. Whether this occurred while they were used, or the smooth edge was a requirement for their use, is unknown. In the ceramics description above, it was noted that some of these tools were made from sherds of earlier vessels; the makers had access to a significant array of older pottery, either from the surface of the mound, or obtained from pits. The function of these modified sherds is not clear; an earlier idea was that they were the products of mostly unsuccessful attempts to make jar stoppers, spindle whorls, or weights. Many appear to have been broken while holes were being made in them. But close examination suggests that the breakage was intentional, and that the creators of these objects had broken them from larger sherds using direct or indirect percussion. Some have complete or incomplete drill holes; these presumably were intended as jar stoppers or weights.

Additional finds from the **transitional Late Bronze/Early Iron** levels included a bone awl, and what appears to be a baked clay bulla or sealing, with no seal impression preserved. In the **Early Iron Age** loci were occasional true clay spindle whorls (spherical or biconical), one with incised lines, and a couple of heavy, unbaked clay loom weights (Fig. 7). Also belonging to the Early Iron Age was an apparently unbaked handmade clay bowl, perhaps a crucible.

MIDDLE IRON AGE

Atop the architecture and features of the Early Iron Age is a fairly thick fill, which has been cut into in various locations for the placement of Middle Iron Age features. The fill was probably intentionally placed to level the area for new construction; it is significant that no superstructural evidence survives on the Early Iron Age walls, suggesting that the builders of the next phase intentionally leveled out any remaining structures.

At least four architectural phases belonging to the Middle Iron Age were detected in excavation. At least one of these was limited in extent to the eastern 5 x 10; we may have missed all sign of it (it was ephemeral in nature), or its absence to the west may reflect the more substantial reworking on that side of the trench in the Late Iron Age. Middle Iron Age levels were also cut through by a number of pits, most probably dating to the Late Iron Age, resulting in significant disturbance of surfaces and other architectural features.

Right above the fill of the entire 10 x 10 m trench is a set of plaster features that signify an industrial function for this area, perhaps following on the previous Early Iron usage. Specifically, a series of plaster depressions runs across the trench, sloping upward toward the east; from west to east these are F31, F30, F102/103, and F105. Best-preserved are F30 and F102/103, both of which measure about 2 m in diameter, and consist of multiple layers of smooth mud plaster, very white (and even polished) in some places, and up to 13 cm thick. F30, excavated in 2005, sat atop hardened clay on its northern half; as it sloped downward to the south, it was less well-preserved, and more crumbly in texture, presumably due to the slope of the mound and to its contents. A series of subcircular depressions ran southwest-northeast across this 20 cm deep depression, indicating posts or props of some kind were set into the feature (Fig. 8). To its north was a flat plaster surface (F28). F102/103, excavated in 2009, comprised two phases of a single feature (103 first, then 102), separated by a thin layer of ash. Before the construction of F103, a curb of stones was set along the northeastern edge; the plaster of F103 then lipped up to and over these stones. F102, above, was removed in its entirety for paleobotanical sampling (124 l). The shape of F102 and 103 was not perfectly concave; in fact, the feature appeared to bulge convexly in its center. F 102/103 abuts the mudbrick bin (F101) described above as Early Iron in date; it is possible that this rebuilding of the earlier bin is in fact contemporary with the use of the plaster basin (but that would eliminate the possibility of a mudbrick superstructure atop F38+109). The plaster features at the western and eastern ends of the trench, F31 and F105, respectively, were smaller and more ephemeral than the middle features, consisting of thin layers of plaster, with some yellowish mud laid on top of 105 as a sort of coating.

What all of these features signify is far from clear, but they seem to imply that this area of the mound was open to the air in the early part of the Middle Iron Age, and used for some kind of industrial activity. Associated artifacts include isolated loom weights, modified sherds, and spindle whorls, indicating a continuity of function from the Early Iron into the Middle Iron Age.

Directly above plaster features F102/103 and F31 is a middle phase of Middle Iron Age architecture. The features of this phase are not continuous through the trench, suggesting that pit-digging disturbed much of the layer. Most significant is a pair of flat,

paved areas, F32 on the western side of the trench, and F27+100 (excavated in two different years) in the center. An east-west wall in the northwestern corner of the trench may belong to this phase; it consists of two features: F23 to the south, of hand-sized stones with a straight southern face, and F24 just north of that, which may comprise a rubble core or northern face of the same wall. These features run into both the north and west balks of the trench. Near the west balk, pavement F32 emerges at a right angle from F23/24 and runs 1.7 m north-south. Similarly, F27+100 is a flat feature running 2.5 m north-south, and about 1.1 m east-west. Each of the pavements consisted of flat, large stones, irregular in shape but nicely fitted together, and just a course high. Just to the east of F27+100, we noted that the pavement was set into a shallow foundation trench, lined with a thin layer of plaster (F99); both paved areas had a smooth layer of yellowish mud-plaster atop them. Why the pavements are not wider is unclear; perhaps they were laid while some of the plaster depressions, such as F30, were still in use, in locations where the ground layer needed to be raised. It also may be that the large stones of a continuous paving proved irresistible to later builders, and a single continuous paving was thus disturbed.

A late Middle Iron Age level was detected only in the eastern half of the trench, and consisted of a series of low stone walls or stone foundations for mudbrick walls delineating an irregular pathway (Fig. 9). Why there was no corresponding architecture on the western side of the trench remains unexplained; it may be that west of these walls was open space, or that the digging of foundation trenches for later construction (see below) ended up removing any architecture on this side. On the east, most of the walls comprised a single course of medium-sized stones. The main exception was the wall furthest to the south (F88), which seems to have sat atop an earlier curving terrace wall (F96). Together, these two walls were constructed of several courses of stones. In the northeast corner of the trench, F94 consists of two faces of nicely squared stones, and is preserved for about 2 m before running into the north and east balks. To its east is a thick layer of clay which may delineate a surface or a space with a different use. Parallel to F94, and about 2.5 m to the west, is a series of walls delineating the other side of this pathway. F95 is a short wall stub running directly north-south into the north balk; at its southern end, about 40 cm to the west, is the northern end of F93, which runs another 2 m northwest-southeast. Finally, not quite meeting the southern end of F93 is F88, the aforementioned rebuilding of the terrace wall. South of F88 is an area that seems to have been used as a dump, which contained a variety of ceramics, beads, and small metal objects. No surfaces were associated with the architecture, but compact earthen paths may have dominated the edge of the site at this time. Several pieces of Middle Iron Age (Alishar IV) pottery were associated with these features, including a large sherd of probable "Stag Ware," with the front portion of an animal painted across a tree pattern; the paint is dark on a buff ware (Fig. 10). Sitting on or just below the "surface" between F93 and F94, in the north balk, was the body and base of a red ware jar with painted cross-hatched triangles on the shoulder (Fig. 11). This piece was intact, but its rim was missing, suggesting reuse.

Above the ephemeral pathway delineated by walls F88, 93-95 is a 20 cm thick fill layer supporting another partial stone paving at the middle of the trench; this is F13+87, preserved for approximately 2 x 0.75 m. The pavement comprises quite large stones, laid flat, with smaller chinking stones in between. Just to the west is a significant stone wall, F12;

this may, however, be a later foundation, dug down to the level of F13+87, and removing some of its stones. On the eastern side of the trench, significant disturbance from pits (see below), perhaps also for the purpose of removing these stones for reuse, has probably removed what was once a larger paved area or any surfaces associated with this feature. Associated pottery is Middle Iron Age at the latest.

Ceramics and other finds from the Middle Iron Age

The Middle Iron Age assemblage from Çadır (Fig. 12) is predominantly wheelmade, though smoothing and other surface treatments (slip and some burnish) have obscured visible wheel marks. Bowl forms include both small and flaring and larger deep shapes; shallow bowls may be painted on both the interior and exterior rims. Bowl fabrics are generally buff to orange or pink; there are some examples of possible Phrygian gray ware bowls with fine, hard-fired fabric. Jars and kraters can have wide necks; some short-necked jars are topped with flaring rims, sometimes with an interior ledge to hold a lid. Jars are of various sizes, with sometimes carinated bellies.

Bowls and jars are frequently slipped (light brown, yellow or orange), and may have painted designs in a darker color (brown to purple to black, depending on firing temperature). Among the common Middle Iron Age painted motifs at Çadır are garlands, cross-hatched lozenges and triangles, ladders, and stags.

Small finds from the Middle Iron Age include significant numbers of worked sherds, especially associated with the thick plaster depressions; also indicative of an industrial function were one or two unbaked clay loom weights. The area of ephemeral stone walls included an incised stone bead and a broken shell pendant. Trash dumping in this area resulted in the accumulation of a bronze needle, stone bead, and iron knife.

LATE IRON AGE

While several levels of Late Iron Age architecture have been excavated, each is of limited area owing to the location of these levels near the top of the mound and their restriction to the northern portion of the trench (owing to the mound slope). These levels extend in date from the end of the Middle Iron Age into (probably) the Hellenistic and Roman periods. At the very top of the trench, we are right below the Byzantine citadel wall; it is possible that these latest levels are in fact Byzantine in date.

At least three pits dating to the Late Iron Age cut through the eastern side of the trench into the level represented by F13+87. These were consistent in size, depth, and construction; their purpose, though, is uncertain, and their tops have been lost to later rebuilding. The earliest, F91, was 1.3 m in diameter and 3-6 cm deep, with a plaster lining; it was cut into by F90, at 1.5 m diameter and 16 cm maximum depth. At the southern edge of the trench, eroded away by the mound slope, was a third pit, F89, separated from F90 by a low wall (the upper courses of F88, reused from a previous level). All of the pits contained significant amounts of Late Iron Age pottery, bone, charcoal, and plaster, suggesting that at

least one use was for trash dumping; in addition, an onyx pendant and blue glass bead came from the pits.

Above these levels were several later phases of architecture, all belonging to the Late Iron Age and later; due to the small size of the trench at this level, however, only small portions of buildings remain. Each phase, however, is quite different in layout and construction, and the structures to which the partially-exposed walls belonged should be revealed in greater extent by digging the trenches further to the north and east. In the phase following the pit-digging, the eastern side of the trench is largely taken up by the inside of a room, with a stone wall along the northern balk (F85), a plaster floor (F83) atop a thick subfloor fill, and the pivot stone for a door in the northeastern corner (F82). It is likely that the room's eastern wall stands just beyond the eastern balk of the trench. These walls may be associated with a feature at the western edge of the 10 x 10, F17, a paving of small stones disturbed by later structures (see below).

The most substantial Late Iron Age architecture comes from the subsequent level, in which a pair of parallel walls on the eastern side of the trench, F77 of stone and F76 of mudbrick (Fig. 13a), are separated by a 2 m wide open space, probably a pathway. F77 is at least 3 m long, extending into the northern and eastern balks, and stood two courses high; it is over 1 m thick, with large stones at its two faces and a rubble core. A thick mudbrick wall probably sat atop it. F76 is preserved for 2 m and is 0.8 m wide; individual bricks could not be delineated. It consisted, in fact, of mud mixed with significant amounts of trash, including animal bones (among which were both horse and donkey jaws) and pottery. At its end was a square stone buttress (F79), perhaps added to reinforce the southern edge of the wall or to delineate a doorway. To the southwest of F76 was a smooth white plaster floor (F78); its continuation on the western side of the trench was undetected.

In the western half of 790.890 was a sizeable stone wall running northwest-southeast (F5) (Fig. 13b). This wall is parallel to F77 and F76, and may be contemporary, or may belong to the next later phase. F5, in turn, abuts a thick stone wall that runs into both the western and northern balks in the northwest corner of the trench, F16, which may represent a perimeter wall. If so, F5 may be one arm of a gate extending from the wall; the pathway running between F77 and F76, further to the east, may serve the same function.

Above this architecture, on the east side of 790.890, was a pair of stone walls that probably once formed a corner, later lost to stone-robbing or mound erosion. These are F26, a wall two courses wide, running from the northeast corner toward the southwest, and, running northwest-southeast, the narrower wall F69. The interior space between them was disturbed by a major rodent burrow.

The rodent burrow was responsible also for disturbing much of the subsequent architectural and artifactual material as well. Several mudbrick walls were set above F69 and 26; F58 and 59 cornered in the northwest corner of the eastern 5 x 10, while F63 and 64 seem to have met in the northeast corner. Rodent activity had chewed up most of the interior space here, and seems to have removed most of F63. A dark rectangular organic patch at the interior corner of F58 and 59 may have been a piece of furniture, or an architectural feature of wood. It had four irregularly-spaced "postholes," which cut into the plaster floor (F57) onto which it

was set (Gorny 2007:26). A bronze needle was found near it, suggesting that the room may have served, in part, as a location for textile production or repair.

A final level of coherent Late Iron Age architecture was excavated above F58 and 59; this was another pair of mudbrick walls, F46 and 47, here meeting to the southwest, with an interior plaster floor (F54). The above-mentioned rodent activity had removed the northeastern end of F47. Above these walls were several levels with stone wall foundations, none of them preserved for enough length to indicate further function or connections. F45, above F46 and 47, is in the northeastern corner of 790.890, and probably will be found in the next trench to be opened to the east. F33, 34, and 35, in the next layer up, are associated with slag and ash; this may be an area for dumping trash associated with industrial activity. The presence of mortar in these walls suggests a date in the Roman or Byzantine period. Finally, a short (1 m) north-south wall stub (F25) at the very top at the northern edge of 790.890 is probably an earlier Byzantine construction, just below the Byzantine citadel wall to the north.

Ceramics and other finds

Late Iron Age ceramics at Çadır have many of the same features as the Middle Iron Age assemblage; except for the largest forms, they are wheelmade, well-smoothed, and hard-fired to a buff, yellow, or gray color (Fig. 14). There are some vessels in a brown-firing clay as well; this is largely restricted to flat-based storage jars. The predominant Late Iron Age fabric has a significant amount of grit temper, and some has mica inclusions. A recent Neutron Activation Analysis study of our Iron Age assemblage suggests that some of this assemblage is of non-local origin, or at least from outside of the immediate Çadır catchment (P. Grave and L. Kealhofer, personal communication). Several explanations might account for this, including traded wares and their contents, differences in preparation technology (trading for non-local clays), or even the arrival of a non-local population with their own ceramic collection. Further work and excavation will better illuminate this aspect of the Iron Age ceramic assemblage.

Smaller vessels are often slipped (buff or light brown), lightly burnished, and painted (dark brown or purple). The painted motifs are limited to geometric designs, already well-established in the Middle Iron levels: zigzags, cross-hatched bands and triangles, garlands, and thin pendant triangles. Bowls have a band of painted designs on both the interior and exterior rim area. Particularly common bowl shapes include shallow bowls with carinated bodies and flaring rims; S-shaped bowls continue to be made in this period. Incurved bowls are also painted on the exterior rim.

Larger vessels, usually unpainted, include jars with constricted necks and flaring rims, larger holemouth jars, and flat-based jars. Pithoi and larger jars usually had two strap handles with flattened sections. One omnipresent type is a very large, thick-walled (coil-built) jar with a white-firing fabric and burnish; no rim or base from these vessels survives to offer an idea of the dimensions. A Late Iron pit (F15) offered numerous vessels for reconstruction. Most of these were standard unpainted utilitarian bowls and jars, and one trefoil-mouthed pitcher, similar to those illustrated from Alişar V (Schmidt 1933: Pl. I: b168, b451, a669) (Fig. 15). The most remarkable item recovered is a finely painted Achaemenid pot, of brown fabric, with a brown burnished slip; on the shoulder were two registers of pendant darts or triangles,

in red and brown paint atop a white-painted panel. The white-painted panel places the pot in the later seventh to early sixth century.

Besides the ceramic assemblage, pits of the Late Iron Age, perhaps used as rubbish dumps, contained an iron knife tip and plaque, and a copper plaque, perhaps from clothing. Clay beads and significant numbers of worked sherds complete the Late Iron assemblage.

CONCLUSIONS

Excavation of the Upper South Slope trench at Çadır has exposed a long, perhaps continuous record of Iron Age occupation, extending from the fall of the Hittite Empire through the Hellenistic Age. In this way, the site differs from its nearest neighbor, Kerkenes Dağ (Summers 2000; Draycott and Summers 2008), but study of other Central Anatolian sites is revealing a much greater continuity in occupation than previously recognized (Kealhofer and Grave forthcoming). Of particular interest for this area of the site is the perceived continuity in function, combining industry and protection, as might be expected at the edge of a settlement. Unfortunately, the mixing of ceramics of various periods by the Iron Age inhabitants makes it difficult, as yet, to construct a viable ceramic sequence for Iron Age Çadır Höyük, but further excavation is planned to help alleviate this limitation.

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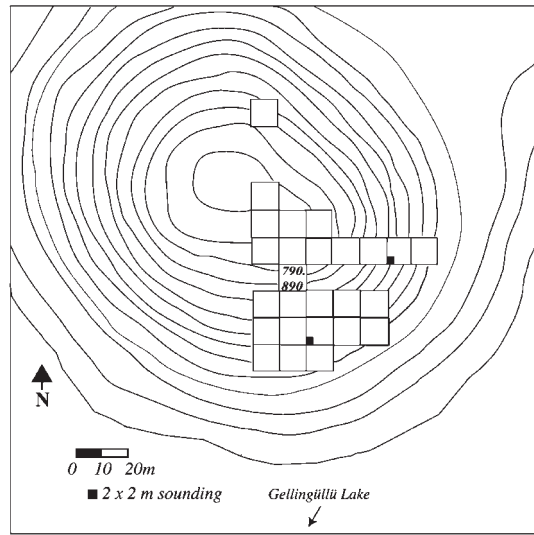


Fig. 1. Topographic map of Çadır Höyük, showing location of Upper South Slope Trench.



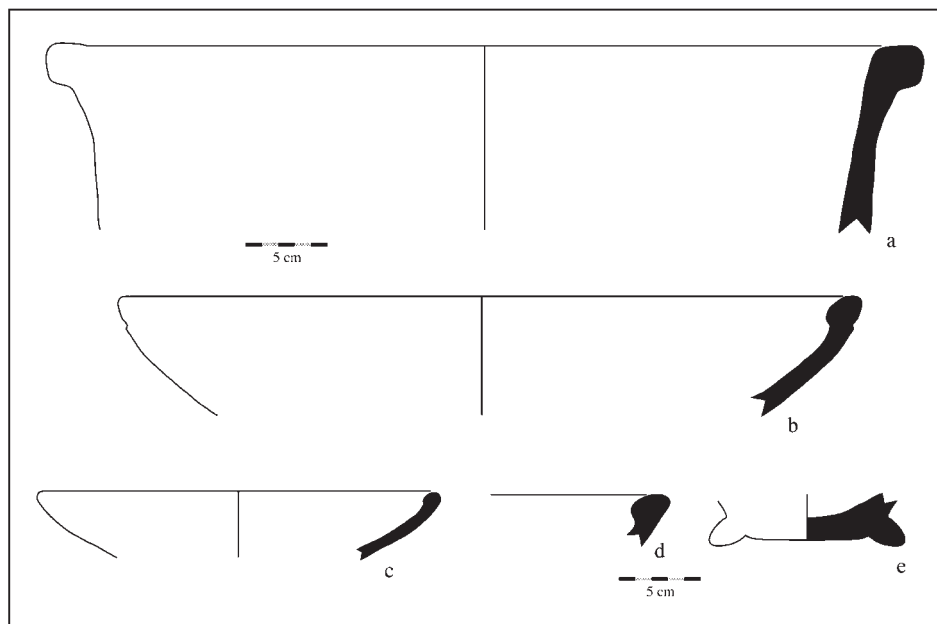
Fig. 2. Early Iron Age architecture in the Upper South Slope Trench.



Fig. 3. Early Iron Age installation in the Upper South Slope Trench.

CATALOGUE OF ILLUSTRATED POTTERY

Each sherd is identified by year of excavation, FCN [Field Control Number, the unique number assigned to each object/lot during excavation], trench number, and locus or feature number. In the following, “ware” refers to the clay color and constitution after firing. This is particularly relevant with regard to references to “micaceous ware,” the apparent clay source used by Çadır residents that contained a generous sprinkling of mica in its make-up. In referring to grit temper the following sizes are used: fine (<0 mm), small (1 mm), medium (2-3 mm), large (4-5 mm), and very large (5mm<).



- a. Bowl (ÇH06; 8070; 790.890; L85): Brown ware with light brown exterior and brown interior, possibly smoothed on wheel. Temper includes small, medium, and large grey grit and grog with some chaff, core is red-orange and fabric is coarse.
- b. Bowl (ÇH06; 8070; 790.890; L85): Light orange exterior and orange interior to tan at rim, wheel marks on exterior, smoothed. Small-and medium white, grey, and red grit temper with some chaff and mica, core is half and half and fabric is coarse.
- c. Bowl (ÇH06; 8070; 790.890; L85): Pink-brown exterior and interior, wheel marks on exterior with turned-in rim. Small white grit temper with some chaff and mica, core is brown and fabric is coarse.
- d. Bowl (ÇH06; 8070; 790.890; L85): Black (burnt?) exterior, orange interior, wheel marks visible on exterior. Small and medium white and grey grit temper with some chaff, core is brown. No diameter available.
- Fig. e. Base (ÇH06; 8433; 790.890; L105): Yellow, slipped, exterior and interior. Small white and grey grit temper with some chaff and mica, core is yellow to orange at exterior. Probably base of large bowl.

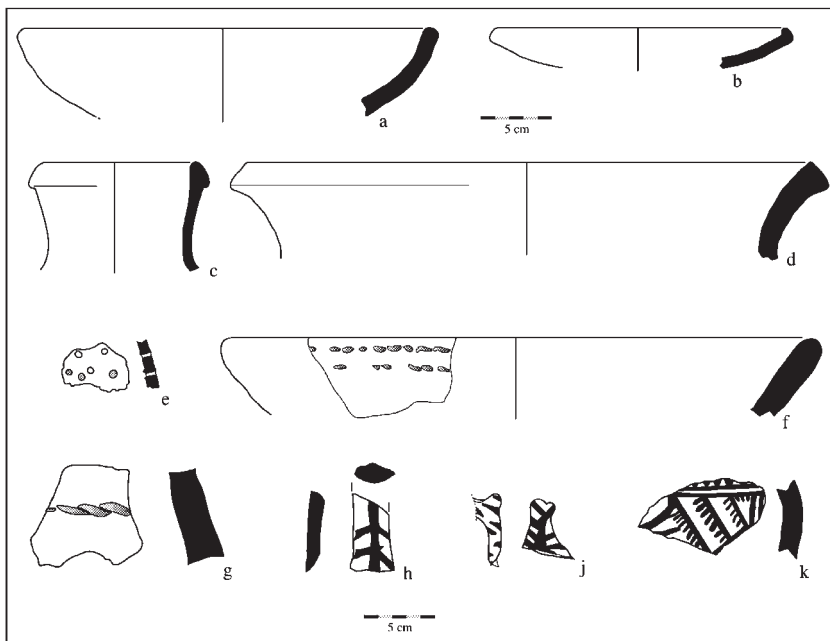


Fig. 5a. Early Iron Age pottery from the Upper South Slope Trench.

- a. Bowl/Possible crucible (ÇH05; 7524; 790.890; L68): Brown ware with brown to black surface. Cracked exterior, interior heavily eroded. Many small and medium sized white grit, and some large white pebbles for temper. Handmade.
- b. Bowl (ÇH05; 7524; 790.890; L68): Orange ware with smoothed exterior and lightly burnished interior, below rim. Wipe marks on exterior, various directions. Uniform core with small white and grey grit and chaff temper. Resembles Hittite-style bowl.
- c. Jug (ÇH05; 7522; 790.890; L67): Folded rim. Pinkish-red gritty ware with brown wash on exterior which was then smoothed. Grey core changes to pinkish-red at surfaces, small and medium white grit temper. Wheel marks visible.
- d. Jar (ÇH05; 7524; 790.890; L68): Folded rim. Orange ware with smoothed and lightly burnished exterior, smoothed interior. Uniform core, small and medium white/grey grit temper.
- e. Body sherd with perforations (ÇH05; 7524; 790.890; L68): Pink-brown ware with smoothed exterior and brown interior. Holes poked from exterior to create sieve effect. Grey core with much small and medium white and grey grit temper.
- f. Bowl (ÇH05; 7522; 790.890; L78): Light brown ware, smoothed and lightly burnished on exterior rim, wheel finishing marks on interior rim. Rope (?) impressed design on exterior. Grey core with some small and medium white and grey grit and chaff temper.
- g. Body sherd (ÇH05; 7524; 790.890; L68): Orange ware with smoothed exterior and interior. Rope impression on exterior. Uniform core with white and grey grit temper. Possibly coil-made.
- h. Handle (ÇH05; 7516; 790.890; L65): Red-brown ware, burnished, with dark brown paint on exterior face. Grey core changes to red-brown surfaces, and some white grit temper.
- j. Handle (ÇH05; 7516; 790.890; L65): Pinkish-red ware with light brown painted pattern wrapping around handle. Grey core changes to pinkish-red surfaces, with small amounts of white grit temper.
- k. Body sherd (ÇH05; 7520; 790.890; L67): Reddish ware with same color wash on a smoothed exterior, light brown paint on exterior, coarse and untreated interior. Uniform core with small to medium white grit temper.

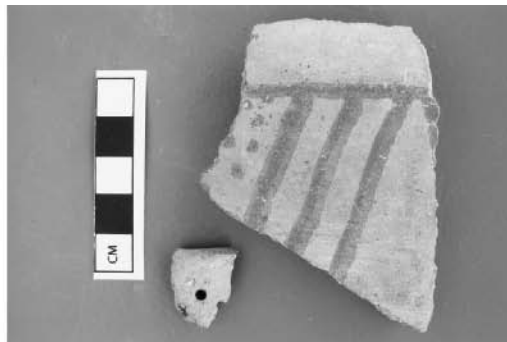


Fig. 5b. Early Iron Age (“Dark Age”) pottery from the Upper South Slope Trench.



Fig. 6a. Modified sherds from the Upper South Slope Trench.



Fig. 6b. Additional modified sherds from the Upper South Slope Trench.



Fig. 7. Loom weight from the Upper South Slope trench.

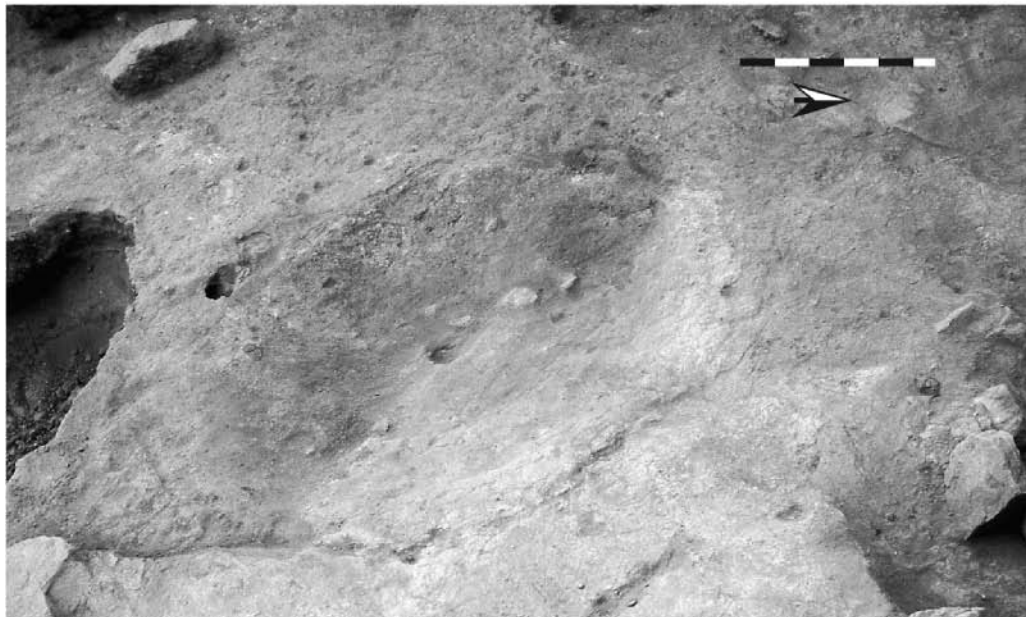


Fig. 8. Feature 30 (plaster-lined depression) from the Upper South Slope Trench.



Fig. 9. Middle Iron Age architecture from the Upper South Slope Trench.

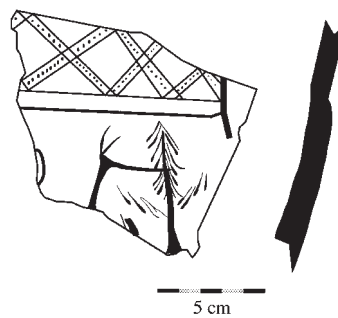


Fig. 10. Stag Ware sherd from the Upper South Slope Trench.



Fig. 11. Middle Iron Age bowl from the Upper South Slope Trench.

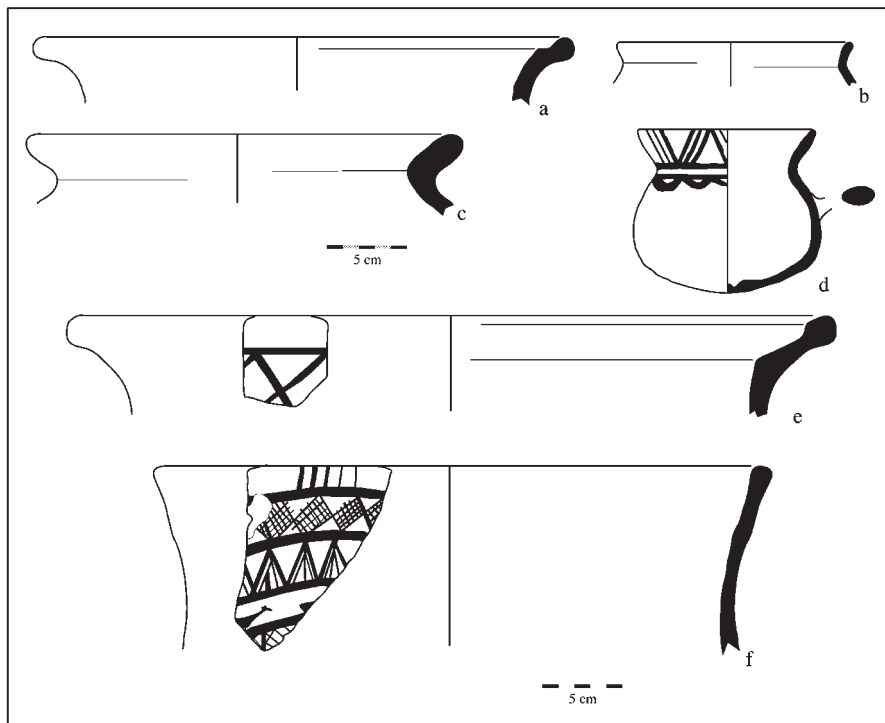


Fig. 12. Middle Iron Age pottery from the Upper South Slope Trench.

- a. Bowl (ÇH05; 7508; 790.890; L62): Brownish-red ware with smoothed and burnished exterior. Untreated interior. Uniform core with much medium and large grey and white grit temper.
- b. Jar (ÇH05; 7195; 790.890; L48): Interior and exterior are black and burnished. Possible cooking pot. Grey core, small to medium white grit temper.
- c. Jar (ÇH05; 7195; 790.890; L48): Orange ware with creamy yellow slip applied to exterior. Interior is untreated. Wheelmade. Grey core changes to orange at surfaces. Small and medium white grit temper.
- d. Cup (ÇH05; 7195; 790.890; L48): Pale orange ware, smoothed on exterior with dark brown paint. Smoothed interior rim, with wheelmarks below. Brown core fades to orange surfaces. Small white grit temper.
- e. Bowl (ÇH05; 7174; 790.890; L45): Orange ware with cream-orange slip on exterior, over rim, and onto interior rim down to ledge. Below ledge on interior surface is unslipped. Dark brown paint on exterior. Uniform core with much small and medium sized white, pink, and grey grit temper.
- f. Jar (ÇH05; 7508; 790.890; L62): Reddish-orange ware with a light brown slip on interior and exterior, light horizontal burnish. Medium brown painted design on exterior. Uniform core with medium to large white grit and chaff temper.



Fig. 13a and b. Eastern (2008) and western (2005) piers of a Late Iron Age gate.

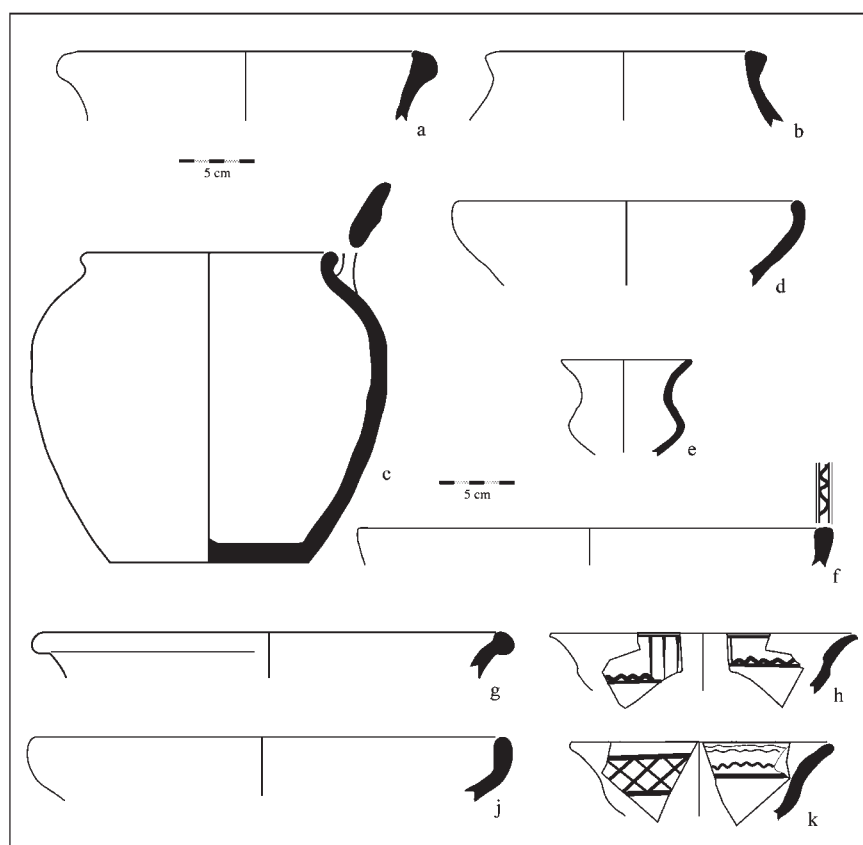


Fig. 14. Late Iron Age pottery from the Upper South Slope Trench.

Fig. 14. Late Iron Age pottery from the Upper South Slope Trench

- a. Bowl(?) (ÇH02; 5514; 790.890; L24): Orange brown ware with wheel marks on both interior and exterior. Uniform core with small and medium white and grey grit temper.
- b. Jar (ÇH02; 5522; 790.890; L24): Brown ware, blackened at rim. Wheel marks on interior and exterior. Uniform core, much fine to small white and grey grit temper.
- c. Jar (ÇH02; 5670; 790.890; L15): Brown ware, blackened from use in fire. Exterior is lightly burnished. Core is brown on interior, black on exterior. Possibly handmade. Small brown and grey grit temper.
- d. Bowl (ÇH08; 8441; 790.890; L106): Brown ware, blackened from use in fire. Smoothed exterior and interior, exterior lightly burnished. Wheelmade. Uniform brown core, small white grit temper.
- e. Cup (ÇH02; 5509; 790.890; L24): Brown micaceous ware, very gritty. Uniform core, much fine to small white grit temper.
- f. Bowl (ÇH02; 5514; 790.890; L24): Orange ware, burnished on both exterior and interior. Single incised line on interior just below rim. Black painted design on rim top. Grey core changes to orange at surfaces, much fine to medium white and grey grit temper.
- g. Bowl (ÇH02; 5514; 790.890; L24): Brownish orange ware, smoothed exterior and untreated interior. Wheel marks visible on exterior. Grey core changes to reddish-brown at surfaces. Small to medium white and grey grit temper.
- h. Bowl (ÇH08; 8739; 790.890; L115): Orange interior and exterior with red-brown paint and burnish below painted design. Wheelmade. Orange core, small to medium white and grey grit temper.
- j. Bowl (ÇH08; 8441; 790.890; L106): Buff ware (micaceous) with buff wash on exterior and interior, and smoothing. Wheelmade. Uniform buff core, white grit temper.
- k. Bowl (ÇH08; 8742; 790.890; L116): Brown exterior with red-brown paint and burnish below painted design, orange-buff interior with brown paint. Wheelmade. Brown core, small white grit temper.



Fig. 15. Late Iron Age painted vessel from the Upper South Slope Trench.

SETTLEMENT PATTERNS IN THE SECOND AND FIRST MILLENNIA BC ELBISTAN PLAIN

Ali Çifçi and Alan M. Greaves*

Abstract

The Elbistan plain and its environment is one of the least investigated areas of Turkey and, with a few exceptions, the region has not yet been subject to systematic archaeological research. The majority of archaeological research in the region was conducted during the late 19th and early 20th centuries. The earliest surveys and excavation, at Karahöyük, demonstrate that the Elbistan Plain has great archaeological potential in regard to the second millennium BC, which is also supported by textual evidence belonging to the Assyrian Colony and Hittite periods. The aims of this article are to re-analyse the available archaeological and historical data using a Braudellian methodology, in order to provide a new context by which to understand the effect of second and first millennium BC historical events on settlement patterns in the Elbistan region, and vice versa. The structure of the article is modelled on Braudel's tripartite chronological categories of the Longue Durée (geographical data), Conjonctures (archaeological data) and Événements (historical events).

AIMS AND METHODOLOGY

During the Assyrian colony period of the second millennium BC, written records tell us that goods were exchanged over long distances, many of them presumably travelling via the Elbistan Plain in Karamanmaraş province, south-central Turkey (Figure 1). However, although it may have played a role in trade between Anatolia and the Near East, this little-known region is relatively un-researched. The aims of this article are to collate the available archaeological and historical evidence for settlement here in the second and first millennia BC, synthesise and analyse that data within a tripartite Braudellian framework, and consider the implications of this analysis for understanding the effect that long-distance trade had on settlement in the Elbistan Plain. Chronologically this study will concentrate on the second and first millennia BC, so as to provide a context for understanding the textual evidence for long-distance trade in the second millennium BC, and the changes that the collapse of the Hittite Empire brought about in the first millennium BC.

Extensive survey has been proven to be a valuable method for examining settlement behaviour in Anatolian landscapes over time, especially when combined with the modern GPS and GIS technologies (e.g. Matthews 2007). However, in some areas of Turkey, the adoption of systematic survey has come only after the excavation of key sites (Greaves 2007: 7) and the overall pattern of coverage of archaeological surveys across

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Turkey is therefore piecemeal, with some areas remaining effectively un-surveyed (Foss, Schindler 2008). In regions where systematic modern surveys have not yet been conducted and/or published, the results of isolated excavations and references in historical sources tend to dominate consideration and discussion of the region's settlement history. One such region is the Elbistan Plain. However, it is possible to gain valuable new insights into the settlement history of such under-researched regions without conducting new archaeological surveys. The value of aerial photography has long been recognised (e.g. McDonald, Hope Simpson 1961) and modern surveys in the Near East have combined satellite images with ground-truthing (e.g. Beck et al 2007). In the absence of published survey data for the Elbistan Plain, the approach adopted for this article has been to conduct a regional meta-survey – that is, a desktop synthesis of all available published material and grey literature on the region.

The collated data from this meta-survey will be structured and analysed within the tripartite structure, first proposed by Fernand Braudel and developed by the *Annaliste* School of historians (Braudel 1972). Although originally applied by Braudel to the historical culture of 15th century AD Europe, this *Annaliste* methodology has found favour with archaeologists attempting to combine limited historical sources with archaeological evidence for proto-historic and historic ancient cultures (e.g. Bintcliffe 1991; Knapp 1992; Greaves 2010). It has also been successfully applied as a framework for understanding the results of archaeological surveys as it provides a means to integrate diverse environmental, archaeological and historical evidence (e.g. Barker 1991, 1995 on the Biferno Valley in Italy; Lambrianides, Spencer 2007 on the Madra Çayı Delta in western Turkey). In common with these previous studies, the analysis presented here will begin by considering the geographical structures of the landscape and the influence that these have had on the settlement history of the region in the long-term (Braudel's *Longue Durée*). Next it will summarise the available evidence for medium-term settlement processes in the plain (Braudel's *Conjonctures*). Finally, it will consider how the short-term historical events (Braudel's *Événements*) that are attested in the historical records for these periods might be accommodated into the emergent picture of general settlement patterns achieved by the analysis of the geographical and archaeological evidence.

RESULTS

1. The *Longue Durée*: Geography of the Elbistan Plain

Taking its name from the city of Elbistan in Kahramanmaraş, the Elbistan Plain¹ covers an area of about 2,547 km² (Figure 2). This broad plain lies between the Taurus the anti-Taurus mountains and is crossed by the Ceyhan River and its tributaries on their way to the Mediterranean. The centre of the plain lies approximately 1,150 m above sea-level and it is surrounded by high mountains that separate it from the Mediterranean and

¹ For the purposes of this article, the Elbistan Plain is taken not as a geographic definition, but to describe the region that included the modern cities and districts of Göksun, Afşin, Elbistan, Ekinözü and Nurhak.

eastern Anatolia climatic zones. These mountains include Binboğa (2,500 m) to the west, Berit (3,054 m) to the south, Hizanlı (2,256 m) to the north, and Nurhak (3,090 m) to the east. Situated between Cilicia, eastern and central Anatolia, and Syria Elbistan has historically been a desirable area for settlement, including the ancient city of Cocussus – modern Göksun (Anderson 1897: 22-44).

Ringed as it is by high mountains, the Ceyhan (ancient Pyramus) River basin is supplied by many seasonal tributaries, springs and rivers (Ramsay 1890; Hogarth and Munro 1893; Anderson 1897: 22-44; Polat 1993: 59). The Ceyhan is joined from the west by a number of tributaries including, in order of size, the Hurman and Söğütlü Rivers, which are fed in turn by smaller rivers such as the Göksun and Nergele (Polat 1993: 62). These rivers have relatively high flows due to meltwater and precipitation from the surrounding mountains and in the last 20 years they have been subject to a number of hydroelectric dam projects (Çed 2004, 2006). Overall, the plain is well watered and rivers play an important role in its agricultural and settlement.

The rich alluvial soils of the Elbistan Plain are some of the most fertile arable land in Turkey (Baykal 1966: 50; Atalay, Mortan 1997: 337). In many places, the plain is intensively cultivated and much of it is irrigated for crops, including cereals, beet sugar, legumes, fruit and vegetables (Çed 2004: 94-100). Animal husbandry is the second largest agricultural activity in the region, especially in mountainous areas such as Nurhak and some parts of the Göksun where flat arable land is limited. Consequently, husbandry predominates in the upland areas to the east and west of the plain and most households here own cattle, sheep and/or goats, and poultry.

The vegetation of the Elbistan Plain is as varied as its climate. Scrub covers the north of the plain around Sultankorusu but in the high south-western areas, the vegetation reflects the more Mediterranean type of climate, with shrubs and herbaceous plants (Polat 1993: 63). Steppe grasses are present in open areas and although the plain itself is treeless, the Koç, Engizek and Berit Mountains are forested.

The physical geography of the region and the high mountains of the Taurus range determine its climate. The Elbistan Plain lies within the transitional zone between the continental climate of central Anatolia/Asia, which is characterized by cold winters and hot summers with moderate to low rainfall, and the semi-arid Mediterranean zone, which has cold moist winters and hot dry summers with moderate rainfall (Polat 1993: 64-65). The western part of the plain is under the influence of the Mediterranean climate and rainfall increases from east to west in the basin. The basin is characterized by a high spring precipitation and usually receives 40-45% of its total rainfall in the winter months. Average summer temperatures are 29-27°C but in winter temperatures frequently drop below freezing (Çed 2004: 21). Again, the milder Mediterranean climate affects the western part of the region, where it is slightly warmer than the eastern part which is under the influence of the continental central Anatolian/Asian climate.

Today the major mineral resource of the region is lignite (Öztürk, Özdoğan 2000). Although there are local sources of copper, iron and lead in the region (Çed 2006: 20-22), its real importance appears to have lain not in its own supplies, but in its position to

access the mineral wealth of central Anatolia and its communication routes via the anti-Taurus to north Syria.

2. *Conjectures: Settlement History of the Elbistan Plain*

Early archaeological literature described the region as the ‘Anti-Taurus’ and during the late 19th century it was visited by William M. Ramsay (1890) and then by D. G. Hogarth and J. A. Monro (1893). In 1929, Hans H. von der Osten (1929) visited Elbistan and recorded many sites during his stay and in mid 1947 Tahsin and Nimet Özgüç (1949) conducted a survey of the region. Most importantly, Tahsin Özgüç excavated the site of Karahöyük making significant discoveries of the second and first millennia BC and marking an important step in the archaeological investigation of the Elbistan Plain. Later archaeological surveys have proven that the region was also had significant Chalcolithic and Early Bronze Age communities and researched its prehistoric pottery (Dönmez, Brice 1949; Brown 1967). Following this work and despite its great archaeological potential, particularly for the information it could provide on societies of the second millennium BC, the Elbistan Plain was largely ignored and it is only recently that archaeologists have once again turned their attention to this region².

The meta-survey of the Elbistan Plain shows that 26 sites have so far been identified and dated to the second and first millennia BC. Due to the nature of the evidence available from the limited surface surveys so far conducted, it is not possible to distinguish chronological periods more precisely than this broad definition. However, as Tevfik Şerifoğlu (2007) has noted in relation to his study of settlement in the Malatya-Elazığ region, to the east of Elbistan, even where more precise data is not available, sites can still be usefully classified by their size. Although there are issues associated with using multi-period settlement mounds in this way, size can nevertheless still be a useful indicator of the relative significance of settlements within a region, especially when related to other information, such as their location relative to natural resources and communications routes (Şerifoğlu 2007: 108).³ The names, key bibliography and estimated site sizes for the sites so far identified in the Elbistan Plain are summarised in Table 1.

Being a desk-top study, much of the data on site size presented here is necessarily approximate. As in the Malatya-Elazığ region, sites in Elbistan have also been subject to post-deposition erosion due to the prevailing climatic conditions (Şerifoğlu 2007: 108). They have also been subjected to less predictable factors affected their preservations, such as illegal excavation and destruction by construction work, which is documented by the TAY project – one of the main sources for this study. Nevertheless, their pre-destruction size can often be estimated and all sites can be assumed have been subjected to broadly

² Erkan Konyar of the University of İstanbul began a survey of the Elbistan region in 2006.

³ The overall size of a multi-period mound is a product of all its phases of occupation, not just the periods under consideration in this article. For example, the overall shape and size of a mound may be determined by earlier phases, over which deposits of the period in question here were overlain. Without intensive surface sampling of individual sites, such settlement histories cannot be generally be understood.

similar environmental conditions. A study of their relative size therefore still has validity, with Karahöyük standing out as the single largest documented mound on the Plain, regardless of the criteria applied (Özgüç, Özgüç 1949:16-17. See also Figure 3).

Using the collated available data for site size from Table 1 and presented in the graph below, three classes of site can be defined by size using Şerifoğlu's methodology (2007). When viewed by their relative size, there is only a single example of a first order site, namely Karahöyük at 10.5 hectares in area. The second order of size includes the sites of Tanır (Yassı Höyük – see Figure 4), Iskaton, Til Höyük, and Tedevin, which are all between 2.2ha and 4.2ha in area. Finally, the remaining sites are all of the third order of size at between 0.2 and 1.2ha in area.

When viewed in terms of their spatial distribution across the landscape, the sites can also be seen to cluster into three distinct geographical groupings. The first of these is concentrated on the north and north-western parts of the plain, in a small area around modern city of Afşin, where Özgüç and Brown identified ten sites with second millennium pottery, namely Emirliyas, Merikli, Ariştıl I and II, Afşin, Tedevin, Çebikçil, Tilafşin, Karahöyük and Tanır (Figure 2). These settlements are focussed around the Hurman River and its tributaries. The sites of the Karahöyük, Tedevin, Tanır, Afşin, and Ariştıl I are larger than the other sites in this area (Figure 4). Karahöyük, the largest, is close to the Hurman River and is located on the east-west route that crosses the plain, providing it with an excellent position to dominate both the plain and its immediate vicinity.

A second group of sites can be identified in the south-western part of the plain. Here, the site of İskartun is the largest settlement (Figure 5). Once again the majority of sites are close to water sources, including Karaelbistan, Mehre, Poskoflu and Tilafşin. This area is south of Karahöyük, where the Göksu River joins the Ceyhan (Figure 2).

The third group of settlements that can be identified are on the north-east and south-eastern part of the plain towards the city of Darende and Nurhak Mountain. As elsewhere, this part of the plain has abundant water resources. The most prominent settlement in this area is the conical mound of Til Höyük, and the smaller sites of Küçük Til and Malab are located close by (Figure 2, Figure 6).

Second Millennium Pottery and Artefacts

In the Elbistan Plain, the pottery dating from the Assyrian Colony and Hittite periods shows similarities to that found in central Anatolia and the Malatya-Elazığ region and has been noted principally at Karahöyük. It has also been observed on some of the other larger sites in the region, such as Karaelbistan, Evcihöyük, Ortaören, and İskartun (Konyar 2007⁴). The distinctive central Anatolian Cappadocian ware also extends into the Elbistan region (Özgüç, Özgüç 1949; Garelli 1963; Brown 1967). Assyrian Colony period pottery has also been found in the Elbistan Plain at a number of identified second

⁴ Personal communication.

millennium BC settlements, including Ariştıl I, Afşin, Tedevin, Til Afşin, Poskoflu, Karahöyük, Karaelbistan, and Tanır (Brown 1967: 161-163).

The red, grey and painted ware found at Karahöyük's single period of Hittite occupation is similar to the Middle Bronze Age pottery of the Malatya-Elazığ region and the fine orange ware reflects Hittite presence in the region. This Hittite orange ware is wheel-made, of fine fabric, and was fired to a bright orange colour and has been found at Korucutepe (Griffin 1980: 60), Norşuntepe acropolis, Horizon III (Hauptmann 1970:34) and Arslantepe level IV (Pecorella 1975:35-38). It closely resembles the pottery that appears at Karahöyük (Özgüç, Özgüç 1949:36-37). Excavations at Karahöyük also recovered typical Hittite pottery such as pitchers with trefoil/beak spouts, vases, water jugs and bowls, as well as some animal shaped vases (Özgüç, Özgüç 1949: 38-40). Hittite period of seals and seal impressions were also unearthed at Karahöyük (Özgüç, Özgüç 1949:42-43 fig 48; Brown 1967:163).

3. *Événements*: Issues of Historical Geography

Having reviewed the geographical situation (*Longue Durée*) and archaeological settlement history (*Conjonctures*) of the Elbistan Plain, it now remains to consider the historical evidence (*Événements*) for the region. However, despite extensive research by numerous scholars the political geography of second millennium BC Anatolia remains an unresolved issue, even given the wealth of the Kültepe and Boğazköy archives (Otten 1955, 1988; Bittel 1970; Özgüç 1986; Michel 2003). The abundance of archaeological sites in Anatolia, the limited scope of the archives and the difficulty in identifying named sites makes locating places mentioned in the texts an on-going problem. For understanding the relationship of Elbistan to the known power centres of the Assyrian colony period, the most useful works remain those of Emin Bilgiç (1945-51, 1946). Following the foundation of the Hittite states more information is available than there had been for the Middle Bronze Age, from archives at Hattuša, Alacahöyük, Alishar and Maşat Höyük (Otten 1955, 1988; Bittel 1970; Akurgal 1978; Alp 1986; Özgüç 1986; Michel 2003). Political treaties, military campaigns, laws, historical events, palace chronicles and religious texts of the Hittite period all provide important information about the political geography of Middle Bronze Age Anatolia (Garstang 1943; Garstang, Gurney 1959; Bryce 2002, 2005), although some issues of historical geography endure (Bryce 2005:42).

Second Millennium BC Textual Evidence

The texts of the Assyrian colony period appear to indicate that trade caravans passed through the Elbistan basin on their way to Kaneš/Kültepe. However, whether the Elbistan region, its settlements and its mineral resources played an active role in that trade, and how that trade affected them, has yet to be given detailed consideration. To do this, a brief outline of the relevant textual evidence and arguments that have been put forward to locate cities named in the text in Elbistan, but these have yet to be confirmed by the discovery of *in situ* texts or inscriptions that connect these names to specific locations in Elbistan. A summary of the relevant texts and discussion is presented here as a basis for

discussion of the implications that these sources have for our analysis of the geographical and archaeological evidence in the region.⁵

The first name that has become associated with Elbistan is that of the kingdom of Mama. A tablet unearthed in Kültepe karum level Ib in 1955 is a letter written in the old Assyrian dialect by Anum-Hirbi king of Mama to Waršama king of Kaneš (Balkan 1957; Orlin 1970; Bryce 2005). Attestations of the name of Anum-Hirbi in contemporary cuneiform texts in Mari date his reign to 1795-1765 BC (Miller 2001: 67). Mama has been variously located in Elbistan, including at Elbistan or Göksun (Balkan 1957), at Tufanbeyli/Şar between Pınarbaşı and Göksun (Lewy 1962), at Hasançık 45 km north of Kahramanmaraş (Dönbaz 1998), and between Göksun and Kahramanmaraş (Garelli 1963:108; Miller 2001:69-70). The letter also indicates that Mama controlled the vassal city of Šibuha which bordered on the territory of Kaneš (Balkan 1957:30; Orlin 1970:84-85).

The city of Hahhum was an important wool production centre, possibly to be associated with the Hittite city of Hahhaš, and where Gudea of Lagash makes mention of taking gold from its mountains (Gelb 1938: 75; Garstang 1942: 455; Goetze 1953: 68-69; Finkelstein 1956: 101-5). Hahhum has been connected with the site of Kangal (Sivas) (Garstang 1942: 455; Bilgiç 1946), somewhere in the Altınova Plain (Orlin 1970: 39-40 n.53); or at a location closer to the Euphrates (Veenhof 1972:243). During the Hittite period, the annals of Hattušili I claimed that he destroyed Hahhum (Güterbock 1964; Collins 1998; Bryce 2005: 77). In order to destroy Hahhum, Hattušili I crossed the Puruna River (KBo X 2 II 48-III 12; Gurney 1992: 216-7; Bryce: 2005: 76:77). This river has been argued to be either the Euphrates (Güterbock 1964; Liverani 1988) or the Ceyhan (Laroche 1976-1977; Collins 1998). If the latter identification with the Ceyhan were to be proven, then it would be reasonable to suggest that Hahhum should be sought in the vicinity of Elbistan.

It is also worth briefly mentioning the possibility that Lawazantiya/Luhuzattia may have been located in Elbistan. According to the Assyrian colony, Hittite and neo-Hittite texts this place maintained its importance throughout 2nd millennium BC (CCT II 48:36; ATHE 62; EL 252; KBo III 46 line 24). It has been argued that the city should not be far away from Hurama (Garelli 1963: 112; Goetze 1940: 73; Orlin 1970: 142-145) and may have been a religious centre in the land of Kizzuwatna, not far away from Kummani (Garstang and Gurney 1959: 52-53). Yiğit (1997) has proposed a possible link with the site of Karahöyük-Elbistan, with which Alp (2000: 50) agreed, but Garelli (1963) favoured a location elsewhere in the Elbistan Plain. However, other suggestions have placed Lawazantiya/Luhuzattia outside the region with Orlin (1970: 81) suggesting that the city should be sought in the south east of the central Anatolian plateau, and Bilgiç (1946: 387 n.8) proposing a location near Malatya.

Other cities mentioned in texts that have been located in Elbistan, or its vicinity, include Timilkia (Garelli 1963; Goetze 1953; Lewy 1963; Orlin 1970), Šalašua (Garelli

⁵ This discussion of the historical sources has necessarily been greatly redacted for the purposes of this article. A fuller presentation and discussion of the sources is given in Çifçi 2008.

1963: 110-3; Veenhof 1972: 333), Hurama/Hurma (Bilgiç 1946: 387 n.8⁶; Garstang and Gurney 1959: 48; Garelli 1963: 113; Goetze 1940⁷; Veenhof 1972: 333; Lewy 1963), Til-Garimmu/Tegarama⁸ (Garelli 1963: 117; Hawkins 2000: 285 n. 45; Bryce 2005: 432 n. 8), and Kuššara (Gurney (1973:234 n.6; Lewy 1962:49-51; Veenhof 1972:283; Bayram 1994:218).

First Millennium BC Textual Evidence

After the collapse of the Hittite Empire, many cities in southern Anatolia and northern Syria retained elements of their Hittite character, developing a distinctive culture characterized by Anatolian and Syrian cultural elements, until the Assyrian expansion of the middle Iron Age (McMahon 2002: 69). Although little is known about the aftermath of the Empire's collapse (c.1200 to 1000 BC), the changed political geography of Anatolia and north Syria probably allowed previously semi-autonomous regions of the Hittite Empire, such as Tarhuntašša and Carchemish, to become independent (Hawkins 1988: 104, 2000: 283).

The historical sources that date to this transformative period suggest that there was political and cultural continuity in eastern Anatolia (Hawkins 2000: 283). Following the disappearance of the Hittites, it has been argued that Tarhuntašša took charge of west-central Anatolia and Cilicia (Garstang, Gurney 1959; Beal 1993: 29-39; Dinçol et al 2000: 1-19; Bryce 2005: 349; Melchert 2007: 507-13) and Carchemish controlled the territory of north Syria, as far up the Euphrates Valley as Malatya (Bryce 2005:349-350; Garstang, Gurney 1959; Hawkins 1988:104).

Although the positioning of the boundary between Carchemish and Tarhuntašša in the immediate disintegration of the Hittite Empire is unclear, an interpretation of the KARAHÖYÜK inscription by David Hawkins may shed light on this period (1993: 276-277, 2000: 288-295). The KARAHÖYÜK stele was discovered by the Tahsin and Nimet Özgüç (Özgüç, Özgüç 1949) *in situ* during excavations at Karahöyük in 1947, and bears hieroglyphic inscriptions on the front, right and left sides. It has been argued that the KARAHÖYÜK stele shows no close links with the Malatya-Arslantepe group⁹ and Carchemish. In contrast, those from Malatya and its vicinity, KARAHÖYÜK show much closer links in terms of palaeography and chronology to the central Anatolian KIZILDAĞ, KARADAĞ, and BURUNKAYA inscriptions (Hawkins 1993: 273-279; 1998:69; 2000: 287-288).

This inscribed stele is a dedication to local Storm God by the local ruler of Armanani for Great King Ir-Tešub(?). It is concerned with the building activities during the period when the Elbistan Plain is generally assumed to have been under the king of Tarhuntašša in the 12th century BC, before the region was annexed by the kingdom of

⁶ Bilgiç 1946: 387 n. 8, close to Euphrates around Malatya.

⁷ Goetze (1940) the north east of "Uršu" Şanlıurfa.

⁸ Also this city associated with Gürün see Forrer 1920:75; Balkan 1957:33; Gotze 1940:20, 1953:69 n 140; Garstang and Gurney 1959:46-47; Orlin 1970:86.

⁹ Izgin, Gürün, Kötükale, Ispekçür and Darende.

Melitane during the 11th century as illustrated by the IZGIN I and II steles (Hawkins 1993:279, 1998:72, 2000: 287-288). In addition to this stele, it is also necessary to note a monumental pair of portal lions between the villages of Yarımca and Yeniköy, about 15 km away from Elbistan called Arslantaş (von der Osten 1929:105 fig. 111; Özgüç, Özgüç 1949:11-16; Hawkins 2000:329) and a single lion sculpture from Sevdili (Eralp 1995; Orthmann 1971:118) in the north eastern part of the Elbistan plain, which are dated to the Iron Age and emphasize the region's importance during Iron Age.

DISCUSSION

Based on the Kültepe Karum records, numerous proposals have been put forward for possible Assyrian trade routes, in almost all of which the Elbistan Plain plays a central role (Bilgiç 1945-51; Garelli 1963). In particular, Özgüç and Özgüç (1949), Bilgiç (1945-51), Garelli (1962) and Orlin (1970) place great importance on the ancient roads of the anti-Taurus region. It would appear, therefore, that the Elbistan Plain was important throughout the Assyrian Colony period and beyond into and Hittite Empire and probably post-Hittite periods. However, the limited number and extent of archaeological excavations in the region mean that it has not been possible to securely identify any named sites by the discovery of new documents or inscriptions, as was possible at Boğazköy (Hattuša), Kültepe (Kaneš/Neša), Ortaköy (Šapinuwa) and Maşat (Tapikka).

The starting point for discussions of Anatolia historical geography have often begun (and ended) with documentary sources, with archaeological evidence and geographical phenomena being cited only in a supporting role to prove or disprove hypotheses derived from these texts. However, even in a relatively under-researched region such as the Elbistan Plain, it is possible to discern particular landscape phenomena and patterns of settlement that can provide an essential context within which to interpret the textual sources. In the terms of Braudel's *Annaliste* methodology, the landscape provides a long-term structure that places a limit on all human activity that occurs within it, which is essentially fixed in most human timescales but is subject to change over centuries or millennia (Braudel's *Longue Durée*). Medium-term processes, such as settlement patterns, demographic change and the introduction of new technologies, can unfold over decades and reflect human responses to the landscape and other external and internal factors (Braudel's *Conjonctures*). Relative to these two slower 'tempos' of historical change, references to specific historical events are short-lived (Braudel's *Événements*). Nevertheless, such events can be useful insights into the deeper historical processes at work within a region and our interpretation of them should always seek to be compatible with the larger scale processes of landscape and settlement, based on geographical and archaeological evidence.

Taking the first of Braudel's tempos, the *Longue Durée*, let us now consider in what ways the geographical structures of the Elbistan Plain might have influenced settlement here in the second and first millennia BC. Although text-based discussions of the region have, as noted above, often emphasised the importance of trade-routes in the region, when one starts by considering the geographical character of the region, and the

distribution of archaeological sites relative to that geography, it soon becomes apparent that proximity to flat cultivable land appears to have been the primary determinant of settlement location.¹⁰ The well-watered areas around the Söğütlü, Hurman and Ceyhan rivers and their tributaries are likely to have been the most important agricultural areas, and even the major sites located on these rivers, such as Tanır and Karahöyük, may have had a role in centralising agricultural produce from nearby settlements. The Hurman and Söğütlü riverbeds were probably suitable for irrigation, but even away from major rivers in areas where large-scale irrigation would not have been possible, large sites such as İskartun, and Ortaören probably practiced dry agriculture.

Arable is not the only form of agriculture practiced in the Elbistan Plain and today animal husbandry is the second biggest agricultural activity in the region, especially in mountainous areas such as Nurhak and some parts of the Göksun where flat arable land is limited. Consequently, husbandry predominates in the upland areas to the east and west of the plain as it probably did in the ancient past. Meadows and pastures in the small valleys and river basins, around Nurhak Mountain in particular, may have been important for semi-nomadic societies that relied on animal husbandry. However, there is no archaeological evidence from these mountainous areas to provide firm evidence that they were once occupied by semi-nomadic groups, as such groups leave little or no evidence for their presence. The historical texts of the Assyrian Colony period mention that the ancient city of Hahhum (see above) was a wool production centre, perhaps hinting at the importance of animal husbandry in the region (Finkelstein 1956:104). If, as the annals of Hattušili I claim, it was necessary for him to cross the Puruna (?Ceyhan) River in order to sack the city, then if Hahhum is indeed to be located in the Elbistan Plain, it should be located near the mountainous regions to the east of the plain near Nurhak Mountains.

The geography of Elbistan suggests that all the ancient and current routes run through valleys to north, west, south and east of the plain. One major overland route runs from Kayseri to Pınarbaşı and from there to Sarız, where it enters the Elbistan plain through Marabuz and then continues to Tanır and Hurmankale, from where it continues on to the Malatya Plain or via Kapıderesi to the Euphrates. There is at present another point of access to the plain via Pınarbaşı through Sarız and Göksun and then from there, along the Göksu Valley to Elbistan, from where the road continues to Malatya. Although currently inaccessible, a third route into the plain would have been from the Aksu Valley of Kahramanmaraş, following the course of the Ceyhan River – a route that was evidently used by the Byzantine army (Hogarth, Munro 1893). To summarise the nature of overland communications routes in the Elbistan Plain, the ancient and modern routes all gather in the north-west of the plain passing either side of Binboğa Mountain, where they run through valleys to the north, west, south and east.

It can be seen that the majority of ancient settlements are focussed around water sources such as the Hurman and Ceyhan and their tributaries. Only in the southern part of

¹⁰ Detailed environmental research is needed to understand precisely what the physical environment of second and first millennia BC Elbistan was like, although the general primacy of landscape as a factor in settlement choice appears self-evident in the majority of cases.

the region are some sites positioned away from rivers. This riverine settlement pattern parallels that of the Malatya-Elazığ region, where the majority of the second millennium BC settlements were located on the Euphrates (Özdoğan 1977).

Another geographical feature of the region is mineral ores of copper, lead and iron. However, at present we do not have any evidence to confirm that these important metal sources were exploited in antiquity. Jan G. Dercksen (1996:16) has suggested, in the light of the Kültepe Karum texts, that the copper producing regions of the Assyrian Colony period were west and north-west of Wahšušana, near Çankırı. Nevertheless, it is possible that some exploitation of metal ores took place in our study region, but proximity to ore sources does not appear to have been a major factor in settlement.

Moving on to the second of Braudel's historical tempos, the *Conjonctures*, let us examine the archaeological nature of the sites themselves and consider what this might reveal about the nature of settlement in the Elbistan Plain. Given the limited number and extent of any excavations in the region to date, it is hard to be precise about the nature of its settlement archaeology. However, it is interesting to note that the only known fortified settlement in the region, is also its largest – Karahöyük.¹¹ Here, traces of large stone and mud-brick defences can be seen associated with the settlement (von der Osten 1929:115; Özgüç, Özgüç 1949:18 pl.25). Although there have been no large-scale excavations at any other sites in the plain, even at sites where *höyüks* have been dug into, exposing their stratigraphy (Til Afşin, Poskoflu, Ozan Höyük, Malab, Karaelbistan, Çogulhan, Til Höyük and Ariştıl I), no evidence for fortifications has yet been reported. If this observation is sustained by further surveys and excavations, then it might support the suggestion, evident from the rank-size of the sites (discussed above), that Karahöyük was a major administrative centre of some importance that needed to be defended, whereas the majority of settlements in the plain were smaller, probably undefended, centres engaged in predominantly agricultural activity. In the contemporary Malatya-Elazığ region excavated sites such as Korucutepe (Bier 1978:47-53; Burney 1980: 164), İmikuşağı (Sevin, Köroğlu 1986:165), and Norşuntepe (Hauptmann 1974:72-73) featured strong fortification walls dating to the at a time when the Elbistan Plain was located between the hostile kingdoms of Işuwa and Kizzuwatna (i.e. Middle Bronze Age II, c1800-1600 BC; Del Monte, Tischler 1978:154-156; Bryce 2005:127; Beal 1986; Wilhelm 1989). This historical background might provide a context in which to understand the Karahöyük fortifications, which almost certainly date to the Hittite period.

Although it is again necessary to note that we often cannot tie down specific sites to specific periods, it is necessary to note and attempt to explain why some sites were much larger than others. The second Millennium BC archaeological sites of the Elbistan Plain are small in size in contrast to southern Mesopotamia sites (Crawford 2004; Pollock 1999) but consistent with Malatya-Elazığ region (Özdoğan 1977) and Amuq Valley (Casana, Wilkinson 2005). In the Malatya region, the largest settlement was Arslantepe, at four hectares (Pecorella 1975; Palmieri 1981), and in the Elazığ region the three large sites of

¹¹ It is possible, however, that smaller sites were defended in some way, but that their defenses have not yet been detected and recorded.

Korucutepe, (4.6 ha – Griffin 1980; Whallon 1979), Norşuntepe (30 ha – Hauptmann 1970, 1974) and Tepecik (6 ha – Esin 1971) all co-existed during second millennium BC. In the Malatya-Elazığ region the distribution of settlements suggests that smaller sites gathered around important economic and political centres such as Arslantepe, Norşuntepe and Korucutepe. In the Elbistan Plain there appears to be a comparable distribution of settlements, with larger sites clustering around larger ones (see Figures 4-6, above). This distribution might be used to suggest that sites such as Karahöyük, İskartun and Til Höyük may have been the economic and political centres of the region, although so far only Karahöyük has been subject of archaeological investigation. The size of sites appears to have varied according to other factors of physical geography such as whether they were close to water or natural mineral resources (Merikli, Emirliyas, Ariştıl, Tilafşın and Poskoflu) or trade routes (Karahöyük, Karaelbistan, Tedevin, Tanır). Although we do not yet have adequate data to prove the hypothesis that the large sites of Karahöyük, Til Höyük and İskartun were political centres, but it seems likely that at least some of them may have functioned economic and political centres. If true, then a corollary of this arrangement would be that the smaller sites that were clustered around the larger sites probably entered into close relationships with those power centres, and accessed and contributed to their agricultural, mineral supply and trade networks.

Finally, we come to Braudel's last tempo – the *Événements*, or short-term historical events – which have so often been the starting point of discussions about the Elbistan Plain. Here we are immediately confronted by the fact that, with the exception of the KARAHÖYÜK, IZGIN I and II inscriptions, there are no surviving ethno-historical sources from the region at all. Nevertheless, a geographical and archaeological understanding of the region can be usefully used to provide a more nuanced understanding of those references in historical texts from elsewhere which are presumed to refer to events inside our case-study region. For example, it was noted above that the city of Mama has been variously located in the Elbistan Plain. According to CCT II (11 a) line 15-18: “36 pieces of Kutanu material from the caravan of Aššur-Emuqi that Aššur-Tab had sent... were lost on the mountain of Mama”. This association with mountains, where access is difficult and goods in transit could be lost led Garelli (1963:108) and Orlin (1970) to locate Mama at Göksun where the Binboğa Mountains separate it from Kahramanmaraş. The archaeological survey from the plain reveals that second millennium BC pottery has only been securely identified at a single site – at Göksun Höyük (Özgüç, Özgüç 1949; Brown 1967). Therefore, whereas previous scholars have located Mama at Göksun, Tufanbeyli/Şar, Hasançık, and between Göksun and Kahramanmaraş (see above), when considered within the geographical and archaeological context of the region, as presented here, currently the most convincing interpretation must be that it was located at Göksun.

CONCLUSIONS

Although originally developed for the text-rich historical environment of 15th century AD Europe, Braudel's *Annaliste* method of historical investigation has been

widely adopted by archaeologists and applied to regions and periods for which only very limited textual evidence exists. In this article, the *Annaliste* methodology has been applied to the proto-historic environment of the Elbistan Plain in the second and first millennia BC. Taken in isolation, the scant historical records that are thought to relate to the Elbistan Plain in this period are open to interpretation. However, it has been demonstrated here that when they are considered in conjunction with a broader understanding of the geographical and archaeological setting of the region, new understandings of their meaning can be achieved, as the discussion of Mama/Göksun demonstrates. It is to be hoped that the settlement patterns and historical inferences suggested by this study can be confirmed by new archaeological research in the region in the near future.

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Table 1: Settlement sites in the Elbistan Plain

| Site Name | Publication | D Period | Size |
|----------------|---|-------------------------------------|------------------|
| Ariştıl I, II | von der Osten 1929; Brown 1967 | Late Chalcolithic Bronze Age | 120 x 100 x 8 m |
| Bozhöyük | Konyar 2007 | Not dated | Not known |
| Afşin | von der Osten 1929; Özgüç and Özgüç 1949; Garelli 1963 | Late Chalcolithic Bronze Age | 130 x 210 x 15 m |
| Çebikcil | von der Osten 1929; Özgüç and Özgüç 1949; Brown 1967 | Late Chalcolithic | 70 x 80 x 8 m |
| Çoğulhan Höyük | von der Osten 1929; Özgüç and Özgüç 1949; Dönmez and Brice 1949; Brown 1967 | Chalcolithic and Bronze Age | 100 x 110 x 10 m |
| Emirliyas | Özgüç 1949; Brown 1967 | Middle-Late Bronze and Iron Age | 70 x 80 x 5 m |
| Evcihöyük | Konyar 2007 | Chalcolithic to Early Bronze Age | 155 x 95 m |
| Göksun | Dönmez and Brice 1949; Garelli 1963 | Bronze-Iron Age and Roman | 300 x 150 x 12 m |
| İskartun | von der Osten 1929; Özgüç and Özgüç 1949; Brown 1967; Konyar 2007 | Middle-Late Bronze – Iron Age | 214 x 186 m |

| <i>Site Name</i> | <i>Publication</i> | <i>D Period</i> | <i>Size</i> |
|-----------------------|---|---|------------------|
| Karaelbistan | von der Osten 1929; Özgüç and Özgüç 1949; Dönmez and Brice 1949; Garelli 1963; Brown 1967 | Middle-Late Bronze and Iron Age | 70 x 100 x 6 m |
| Karahöyük | von der Osten 1929; Özgüç and Özgüç 1949; Dönmez and Brice 1949; Garelli 1963; Brown 1967; Sherratt 2005; Konyar 2007 | Middle-Late Bronze and Iron Age | 350 x 300 x 18 m |
| Karasüleymanlı | Konyar 2009 | Bronze Age | 140 x 172 x 28 m |
| Küçük Til | Brown 1967 | Late Chalcolithic, Bronze-Iron Age, late Roman Empire | 70 x 80 x 8 m |
| Malap | Brown 1967 | Chalcolithic to Roman Empire | 90 x 100 X 12 m |
| Maraba | Brown 1967 | Late Chalcolithic, Middle-Late Bronze and Iron Age | 40 x 50 x 2 m |
| Mehre | Brown 1967 | Early-Middle-Late Bronze and Iron Age | 100 x 100 x 12 m |
| Merikli | von der Osten 1929; Özgüç and Özgüç 1949; Garelli 1963; Brown 1967 | Late Chalcolithic, Middle-Late Bronze and Iron Age | 40 x 50 x 5 m |
| Ortaören | Konyar 2007 | Early Bronze to Late Bronze Age | 194 x 159 14 m. |
| Ozan Höyük | von der Osten 1929; Dönmez and Brice 1949; Brown 1967 | Late Chalcolithic Middle-Late Bronze and Iron Age | 60 x 80 x 5 m |
| Palanga | Özgüç and Özgüç 1949 | Iron Age | Not known |
| Poskoflu Höyük | Brown 1967 | Late Chalcolithic to Middle-Late Bronze Age | 80 x 100 x 10 m |
| Tanır (Yassı Höyük) | Ramsey 1890; von der Osten 1929; Özgüç and Özgüç 1949; Dönmez and Brice 1949; Garelli 1963; Brown 1967 | Late Chalcolithic, Middle-Late Bronze and Iron Age, Hellenistic and Roman | 260 x 160 x 7 m |
| Tedevin | von der Osten 1929; Özgüç and Özgüç 1949; Brown 1967 | Late Chalcolithic, Bronze Age, Iron Age, and Hellenistic | 130 x 170 x 15 m |
| Til Afşin (Tellafşin) | von der Osten 1929; Dönmez and Brice 1949; Garelli 1963; Brown 1967 | Late Chalcolithic, Bronze and Iron Age | 90 x 100 x 15 m |
| Til Höyük | von der Osten 1929; Brown 1967 | Bronze-Iron Age | 160 x 200 x 14 m |



Figure 1: Location map of major sites and regions around Elbistan.

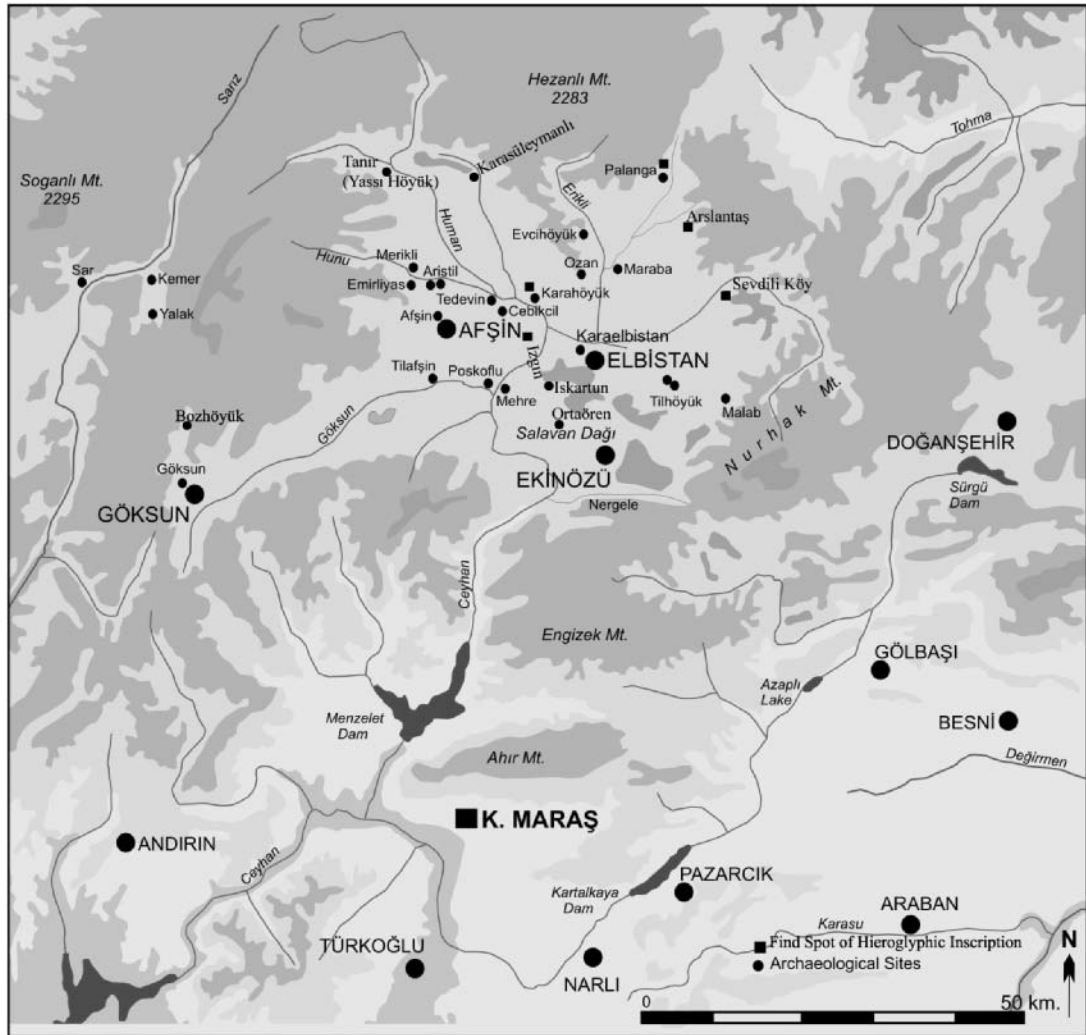


Figure 2: Sites on the Elbistan Plain.



Figure 3. Karahöyük (Photograph courtesy Erhan Konya).



Figure 4: Tanır (Yassı Höyük) (Photograph courtesy Erhan Konya).

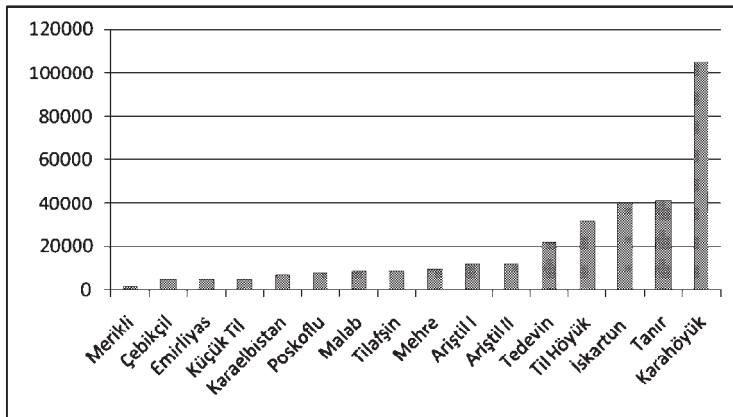


Figure 5: Documented sites in the Elbistan Plain by size.

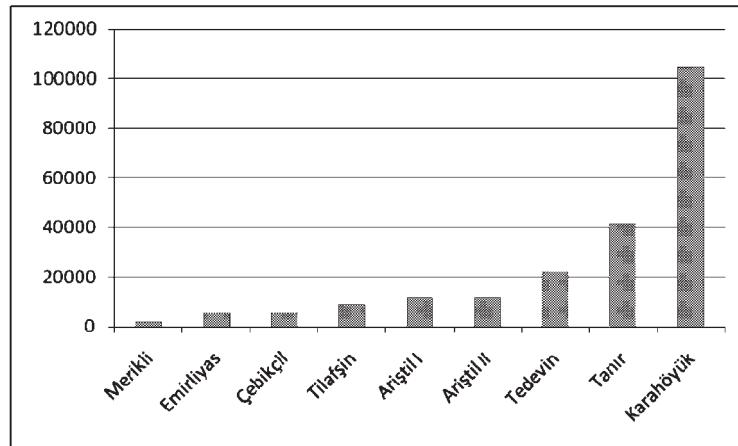


Figure 6: The Karahöyük Group.

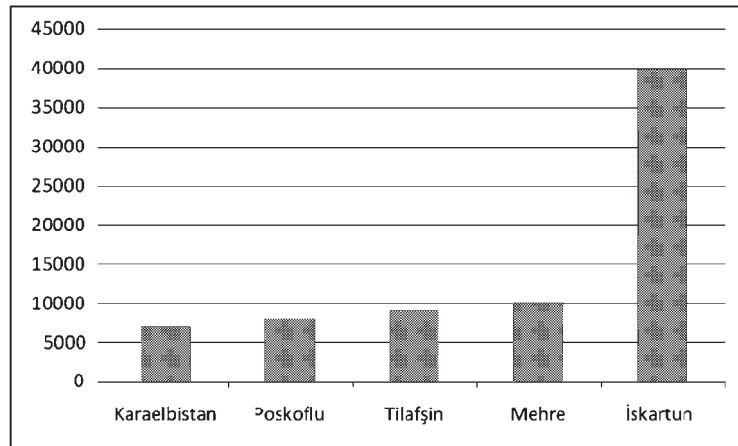


Figure 7: The İskartun Group.

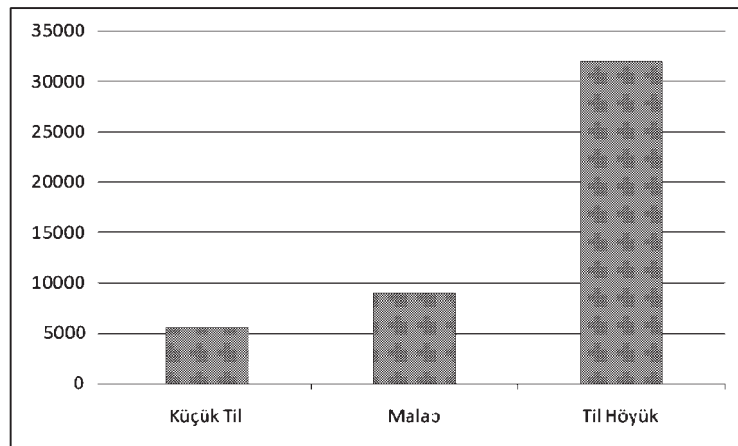


Figure 8: The Til Höyük Group.

SURVEY OF THE ARCHAEOLOGICAL LANDSCAPE OF UŞAKLI / KUŞAKLI HÖYÜK (YOZGAT)

S. Mazzoni, A. D'Agostino, V. Orsi

INTRODUCTION (S. Mazzoni)

In 2008 and 2009 thanks to the kind approval of the Directorate of Cultural Heritage and Museums of Turkey¹ a new archaeological survey was started by the University of Florence² on the site of Uşaklı/Kuşaklı Höyük and its surrounding area, a wide plain north-west of the Kerkenes Dağ watered by the Egri Öz Su.

The site is clearly visible from the route connecting Yozgat and Sivas (fig. 1), emerging in a wide plain defined to the south by the Kerkenes Dağ. It had already been visited by E. Forrer in 1926 (Forrer 1927: 33), by H.H. von der Osten (von der Osten 1929: 37, 38, Figs. 31-32) in the following year, and later by P. Meriggi (Meriggi 1971: 62, Pl. X.1-2), and recorded under different names: Kusachakly (Forrer), Kuşaklı (von der Osten) and Uçaklı (Meriggi).³ On the old maps of the land register of Sorgun, the site is clearly marked as Uşaklıhöyük;⁴ however, the name of Kuşaklı Höyük prevailed in the literature and the höyük is listed with this name in the Yozgat catalogue of archaeological sites of the region. In order to avoid confusion with Kuşaklı/Sarissa we will use Uşaklı/Kuşaklı Höyük.

¹ We wish to express our sincere gratitude to the Director of the General Directorate of Cultural Heritage and Museums, Orhan Düzgün, to the Director of Excavations, Gökhan Bozkurtlar, and his staff for their invaluable support. We are truly grateful also to Erkan Yılmaz, of the Museum of Aydın and Emel Özçelik of the Museum of Eskişehir, who gave us gracious and wise assistance, and to Director of the Yozgat Museum, Hasan Senyurt for his kindness. We thank the Sorgun District Governor, the İlçe Kaymakani, Ertugrul Kiliç and the Military Head Commander of Sorgun, the İlçe Jandarma Komutanı, Hakan Öztürkmen for their kind welcome and aid during our staying in the region. The guardian of the Kerkenes house, Mehmet Ergiyas, and the Muhtar of Sahmuratlı, Osman Muhratdağı, made our stay there easy in every way. Special thanks are due to Murat Akar, PhD student at Florence, and Ekin Demirci, student at the Bilkent University, who worked with us in the field and provided their valuable help on many questions. We are indebted to Prof. Tangianu, Director of the Istituto Italiano di Cultura for her support and interest. Financial support for this campaign has been granted by the University of Florence and the Foundation OrMe, Oriente Mediterraneo.

² Director: S. Mazzoni; archaeologists: A. D'Agostino, V. Orsi, B. Chiti, M. Akar; epigraphers: G. Torri, C. Corti; topographers and geomagnetic surveyors: G. Carpentiero, E. Mariotti; geomorphologists: R. Salvini, A. Cartocci, M.C. Salvi; draughtsman: S. Martelli; students: G. Della Lena Guidiccioni; E. Demirci, F. Barsacchi, M. Di Marcoberardino, D. Fossati, R. Ranieri, W. Bucci, F. Longo.

³ See Summers 1995: 53-55.

⁴ We thank our 2009 representative, Emel Özçelik, who made enquiries of the communal authorities which own old maps of the land register.

The first archaeological survey of Uşaklı/Kuşaklı was carried out by G.D. and M.E.F. Summers in 1993-1994 in the framework of the Kerkenes Project.⁵ They were able to provide for the settlement a date which includes both the 2nd and 1st millennia B.C. with a main *floruit* in the Hittite period, on the basis of a preliminary surface collection of pottery. A few blocks in the lower terrace, apparently *in situ*, were recognised by von der Osten, and later on by Meriggi and Summers as belonging to a gate and documenting a not insignificant Hittite phase. Summers also attributed to the site a well dressed granite slab now in the garden of the mosque in the nearby village of Aşağı Karakaya Köy. A further important document associated with Uşaklı/Kuşaklı Höyük is a Hittite tablet which is said to have come from Taşlık Höyük, a small mound of LC and EB periods, 2 km SW of Uşaklı/Kuşaklı.⁶

O.R. Gurney suggested that this settlement could be Zippalanda (Gurney 1995: 69-71),⁷ because it lies about 30 km as the crow flies to the north of Alişar Höyük, which had already been identified with Ankuwa by I.J. Gelb.⁸ Textual sources place Zippalanda two or three days (in two different itineraries) from Hattuša (which lies nearly 43 km to the north). According to the Spring festival, the Hittite king worshiped Mount Daha, the seat of a Storm God, after having reached Zippalanda, and moving to Ankuwa. A good candidate for this mountain is, therefore, Kerkenes Dağ, as Gurney pointed out.

Against this background, our new survey is primarily directed towards exploring intensively the site and its catchment area and obtaining clear information on its historical development. At the same time, it aims to gather evidence on the settlement pattern of the plain over a long duration and examine its environment and economic background. Distinct and coordinated archaeological, topographic, geophysical and geological surveying operations have been consequently organised in the first two years of the research.

The survey was conducted in a very limited area of the south-western region of the province of Yozgat, dominated by granitic cliffs and mountains, rich in springs and water, especially to the south of the river Egri Öz Dere, which flows from WNW to E, and south of the highway which today links the towns of Yozgat and Sorgun. Uşaklı/Kuşaklı Höyük is located in the southern and western part of a quite large plain limited to the N by the Egri Öz Dere (fig. 2). The höyük lies on the southern bank of the river in a large recess shaped by the meandering course of this stretch of the river. The plain is limited to the N by gentle hills; to the NW can be seen the mountains bordering Hattuša which are crossed by a network of rivers providing clear route alignments along the bottom of the valleys. The high and distinct profile of Kerkenes Dağ marks the

⁵ Without the initial encouragement and support given to the application by G.D. and M.E.F. Summers and their generous scientific guide, our work would not have reached its goal. No less appreciated by our team was their hospitality in the Kerkenes Mission house which made our stay a fully enjoyable experience. See Summers, Summers and Ahmet, 1995: 43-68.

⁶ On the tablet see Summers, Summers and Ahmet 1995: 55.

⁷ In a religious festival the Hittite king, moving from Hattusha, reached Haitta and Mount Puskurunuwa. From there, the king arrived on the third day in Zippalanda, where he worshiped Mount Daha (probably Kerkenes Dağ). The next day, he reached Ankuwa.

⁸ For the debate on the identification of Ankuwa, see Gurney 1995: 70, note 9.

southern skyline of the landscape; the mountain can be easily reached from Uşaklı/Kuşaklı Höyük through two wide N-S valleys running parallel on the east, while to the west and south there are instead deep gorges rich in natural springs and small watercourses, such as the Kötü Dere, a SW tributary of the Egri Öz Dere.

The survey is currently concentrated on a triangle of the NW sector of the regional survey of the Kerkenes Project conducted by G. Summers. To the S of this area a regional survey was undertaken by S.A. Branting in the area of Alişar Höyük in the framework of an excavations project begun in 1993 in Alişar Höyük and in the nearby Çadır Höyük by R.L. Gorny (R.L. Gorny 1994, 1995; Branting 1996). To the NW the regional survey of Büyüknefes-Tavium by K. Strobel and Ch. Gerber covers an extended area to the N and NE of Yozgat (Strobel, Gerber 2007a, 2007b); a further survey concentrated on the routes linking the area with Hattusha and the site of Yassihüyük and its catchment by M.F. Fales, St. de Martino S. Ponchia and M. Luciani (Fales, De Martino, Ponchia, Strobel 2009). These regional investigations were able to provide evidence of a steady occupation of the area from the Late Chalcolithic/EB I period on, with a substantial increase during the Hittite and Iron Age periods and a final *floruit* in the Byzantine period.

GEOLOGY OF THE AREA (R. Salvini)

The geology of the area is the result of the collision of Eurasian and African-Arabian plates which began more than 100 million years ago with the closure of the ancient Tethys Sea. The collision created mountain ranges and valleys as well as provoking volcanic activity and intrusion of igneous granitic rocks. Plate movements produced numerous faults that bound large areas, the continuation of which explains the susceptibility of Anatolia to earthquakes.

The granitic rocks were formed kilometres beneath the earth's surface where the collision of plates caused the crust to thicken. Great pressure and temperatures at these depths began to melt the rocks of the continental crust. The resultant magma was forced up through fractures and accumulated, forming granitic rocks as it slowly cooled. The study area lies along the Alpine-Himalayan system within the Central Anatolian Crystalline Complex or CACC (Erler and Göncüoğlu 1996), an assemblage of magmatic, metamorphic and ophiolitic rocks highly fractured by continuous deformation since the Upper Cretaceous.

The granitic rocks, present mainly in the southern part of the area, intruded older Paleozoic-Mesozoic metamorphic rocks and late Cretaceous *mélange* units, and are overlain by early Tertiary volcanics, clastics, coal and carbonates. To the north, Miocene evaporites and clastics and Plio-Quaternary clastics are the youngest cover rocks of the region mainly represented by sandstones, marls, conglomerates and breccia.

The distribution of rock units in the region is mostly caused by the NE-SW trending faults. Fractures are easily recognised on the surface because they have a high moisture content that creates linear growths of grass. Water resources are also controlled by faults and fracture systems. Springs have formed at intersections of fault or fracture planes along which water can easily rise upwards. To the south-west of the area granitoids

were uplifted by these faults and they occupy topographically high erosional areas, such as ranges or hills. The cover units occupy low depositional areas and are not resistant to erosion.

The primary minerals of granitic rock are plagioclase, K-feldspar, quartz, pyroxene and hornblende. Besides primary minerals in various proportions, other minerals can be identified such as biotite and chlorite.

The highest elevations of the area are in the north-western neighbourhoods of Islegen (above 1,300m). The lowest measured point is north-west of Babalı (1,146m). The site of Uşaklı/Kuşaklı Höyük lies within a simple drainage basin that consists of one main stream, running WNW-ESE with small tributaries.

Talus of blocks of granitoids at the foot of the hills, alluvial fans of gravel to sand-sized fragments of rocks along topographic breaks, alluvium along tributaries and the main stream, and soil on gentle slopes constitute the main depositional features of this area.

Fieldwork activities

The geologic-geomorphologic survey was conducted over an area of about 90 square kilometres around the mound of Uşaklı/Kuşaklı Höyük (the big triangle in figures 3 and 4) during August-September 2009.

The geomorphologic study involved the geological survey and GPS measurement of rock outcrops and morphological features (133 stops) (fig. 3).

A multispectral GeoEye stereo image pair, 0.50 m ground resolution, were acquired on September 25th 2009, with the aim of creating, from the stereoscopic digital restitution, a topographic map of the Uşaklı/Kuşaklı Höyük area on a scale of 1:10,000, a Digital Terrain Model (DTM) and a geomorphologic map.

The survey involved 132 GCP, spatially well-distributed around the area (Figure 2) and related to 9 purpose-built reference stations (south of Kababel village, north of Karakaya Köy, west of Dişli, Inceçayır, Kuşaklı Höyük, Karakaya Köy, north of İşleğen, Kuçuk Taşlık, west of Babalı) (fig. 4). Thanks to the director of the Kerkenes Mission, coordinates and description cards of 3 reference points were made available (Atalan et alii 2008). Moreover, additional trigonometric points were acquired at the Harita Genel Komutanlığı – Geodezi Dairesi Başkanlığı of Ankara.

INFORMATION FROM THE SURFACE: THE TOPOGRAPHICAL SURVEY (E. Mariotti)

The survey on site took place in different working sessions during two campaigns (2008-2009): the topographical survey involved the whole site (the höyük and its valley) and the surrounding area, for a total surface of 50 ha with 43,000 topographical points recorded. The entire extension of the settlement is about 10 ha, while the central mound covers an area of 2 ha. The measurements were taken at the mean distance of 1 m along linear paths, following the natural morphology of the soil (2008).

The interpolation of measured points from survey generates a 3-Dimensional model: the surface is represented homogeneously and can be read in its realistic shape. An

initial interesting result come from examination of the contour line layout: the plateau of the lower city, in spite of the apparent uniformity of the surface, is actually characterised by two clearly distinct areas identified by the different orientation of the isoipses (figs. 5 and 6). They might represent two urban districts serving different functions: the eastern one could be linked to a public area or to the acropolis itself (area A), the other one (area B) probably playing a more general role in the communal life of the site. The eastern part is characterised by huge structures, which have determined the current morphology of the terrain (as clearly visible from the results of geophysical survey); the western and north-western part with a larger extension of about 3 ha is characterised by a low depression and, along its northern and southern limits, shows what could be a gate and a defensive rampart.

These structures, although still hypothetical, can be determined from the 3D model (fig. 6): the north-western edge of the lower city presents two bumps with a central depression at the very limit of the slope that could be identified as the wall rampart. Examining its shape and position we can assume the presence of a gate flanked by defensive structures (towers or small ramparts). The central gully on the surface could represent the passage through the entrance. Seen from the digital model the whole complex seems to be of remarkable size (about 65 m x 20m), which is probably also determined by collapses and later stratification. It is not possible to estimate the exact width of the gate; we can only note that the more clearly visible point of the depression (and its related isoipses) is about 5 m wide. This position is certainly of strategic importance both from a tactical and an urban point of view, near the limit where the lower city turns towards the south. In similar cases fortifications show several vulnerable sides facing outwards which, for precisely this reason, are normally provided with defensive structures, such as ramparts and towers. This is the reason why gates and access roads are provided with the same structures. Similar considerations can be applied to strategic and defensive techniques of both Classical and Hellenistic features as well as Hittite fortifications.

The Digital Elevation Model shows other characteristics, such as: a) the central part of the western valley is crossed by a slight linear dip, coming from the structures described above; the path ends at the limit of the tell, in the southern part of the area, where another similar dip is visible; b) the south-western corner of the valley is higher than the surrounding area, creating a bump and a significant external slope. The hypothesis concerning the presence of a huge defensive structure in this place seems to be confirmed by the presence of large square blocks with well-shaped corners. We cannot rule out the presence of another eastern entrance, in a protected and tactical position; c) in the extra-urban region there are some interesting prints, visible in the north-western area, which is in a lower position than the rest of the valley and the surrounding fields: the mark running south-west/north-east, visible in the surveyed surveyed sector,⁹ could be identified as a paleo-riverbed or a marsh area during the wet-season.

⁹ The modern road and the river with trees on its banks have hindered a wider survey. Nevertheless this is the only part of the site which seems to have maintained its geomorphologic patterns.

Technical information:

1. total surface surveyed: approximately 30 ha;
2. total points recorded: 42,000;
3. extension of the terrace: circa 7 ha;
4. extension of the central mound: circa 2 ha
5. elevation: 1116-1136 m above sea level;

FIRST RESULTS OF GEOPHYSICAL SURVEY (G. Carpentiero)

The first two campaigns of geophysical prospection concerned the northern and eastern part of the terrace at Uşaklı/Kuşaklı Höyük.

The main aims of the survey were to recognize the topography of the site and the urban organization of the city, to identify road networks, districts, the circuit of walls and, finally, the extent of the settlement. The area for the geophysical prospection was chosen in order to investigate a part of the lower city which seemed the most accessible for data acquisition.

With the aim of integrating different kinds of geophysical prospection with other survey methodologies, magnetic surveying was undertaken together with a geoelectric survey, while the topographical survey with DGPS (Differential GPS) was carried out alongside the surface survey on the same grid as the geophysical prospection. The integration of different methods is necessary as geophysical data furnish a one-dimensional image of buried structures. Systematic collection of pottery sherds and other materials helps to outline the diachronic development of the settlement and, where possible, to identify the function of different structures (Keay 2000: 6).

Magnetic survey (fig. 7)

The acquisition of magnetic data on the site of Uşaklı/Kuşaklı Höyük has been carried out using a Fluxgate Gradiometer FM36 (Geoscan Research), a model of magnetometer which has two sensors stacked vertically 0.5 m apart and which records the differences between their readings. It was chosen also because of its practical suitability for covering a large area in a relatively short time.

This method is particularly effective as it can be carried out rapidly before further geophysical investigations. In 11 days work (9 days in 2008 and 2 days in 2009) an area of 3.68 hectares was investigated, divided into a regular grid of 92 squares. The dimension of each square was established as 20 x 20m and the measurements were taken every 0.50 m (sample interval) with 1 m traverse interval for a total of 73,600 readings. The acquisition was made with parallel mode (instead of zig zag) in order to reduce field errors and noise such as that produced by grid edges and striping of traverses. Fluxgate sensors are relatively sensitive to changes in survey direction as they measure the vertical component of the total magnetic field. The field accessories such as measuring tapes and wedges were made of non-magnetic materials. The gradiometer sensitivity was set to 0.1 nT.

After the acquisition Geoplot Software (Geoscan Research) was used to download and process the gradiometer data with different functions, such as zero mean grid, zero mean traverse, low pass filter and clipping. The result was a shade plot map in greyscale as visible in the table.

Geoelectric Resistivity survey (fig. 8)

An RM15 Resistance Meter (Geoscan Research) was used for the electrical resistance survey at Uşaklı/Kuşaklı Höyük over the north-eastern edge of the area, already surveyed the year before by magnetic methods. The survey was carried out in 20 by 20 m grids with a sampling strategy of readings every 0.50 m at 0.50 m traverse intervals in zig-zag mode. This kind of horizontal surveying enables us to determine the location of artefacts and features by observing the distribution of relative electrical resistance and attempting to infer the nature of the anomalies from their shape, size, position and strength.

Data was collected for a total of 26 grids covering an area of 10,400 square metres, a little over one hectare. Results were of greater clarity than the data obtained from the magnetic survey alone.

Preliminary results and interpretation

With the help of the geophysical survey completely new structures were detected and numerous new details perceived. A positive result was that we were able to verify that the two methods detect different sorts of anomalies that can be integrated with each other. This effect depends on the nature of the construction material, the surrounding soil and state of conservation. For this purpose it is interesting to note the different data obtained with the two methodologies: the structures visible during the magnetic survey are invisible in the geoelectric and vice versa.

The overall impression gained from the combination of the results obtained from the two kinds of prospection is that all the structures are oriented in the same direction (northwest-southeast), except those on the slope in the southern part of the prospected area probably influenced by local topography. We are also able to identify four particular areas of interest.

The first (A) indicates the presence of a huge defensive structure on the north-western side of the surveyed area connected with the system of bumps and gullies already visible from the topographical survey (see above: Mariotti). In particular the magnetic survey locates a marked anomaly arising from a structure subjected to severe heating (probably burned by fire) as visible in the greyscale shade plot map (fig. 9).

Moving east, another large structure (B) is clearly visible when we combine resistivity and magnetic data. This covers an area of approximately 50 by 40 m with several rooms probably around a court. In this case the resistivity survey was much more effective than the magnetic one which did not yield such good results.

In the north-east corner of this area there is a structure clearly visible from magnetic survey as it was probably heated by fire (fig. 7) with two pairs of rooms on

either side of a small passage and another anomaly probably to be identified as the two walls of a city wall circuit.

The third large structure (C) is located south of the second. Here we can clearly discern the presence of 4 long rooms that can be interpreted as store rooms and some other large rooms underneath, all flanking a possible road that led from the “gate” to the city core.

The last large complex of anomalies singles out the presence of two long walls bordering the slope and other structures not homogenously orientated. On initial analysis these could be interpreted as the city walls and the structures outside in the suburbs. All the small round anomalies could be kilns or other productive structures.

SURVEYING MATERIALS AND ARCHITECTURE (B. Chiti)

The collection of surface materials conducted on the Uşaklı/Kuşaklı Höyük site during the 2008-2009 campaigns involved a total surface area of 29,151 m², divided into 6 different areas¹⁰ situated on the terrace and the northern and south-eastern slopes of the lower terrace (fig. 10), where architecture remains are exposed and sherds are abundant on the surface. For the acquisition of the prospecting data (archaeological, geomagnetic and geoelectric), a 20x20m-square grid was constructed,¹¹ inscribing the site in a 500x380m rectangle. In the areas involved in the collection, the squares were in turn subdivided into smaller squares of 5x5m, so as to facilitate the localization of the finds. The south-eastern slope of the lower terrace was instead divided into lots and bands following the present system of agricultural division and morphology of the land. Diagnostic pottery was then surveyed by means of total station (Leica TCR407 Total Station).

Mapping surface architecture was a further goal of the project, beginning with the large-sized stones (Structure 1) on the eastern side of the lower terrace (figs. 11), already identified in the course of the preceding surveys as a Hittite gate.¹² These remains appear to have been greatly altered since their first discovery. Nine blocks of granite are actually on the surface and apparently *in situ*,¹³ carefully worked and arranged on two parallel staggered segments. These segments are both orientated along the SE-NW axis and stretch along a total line of about 10 m. Despite the absence of an effective connection between the two alignments, the original “Z” shape of the structure can still be made out.

The distinct granite used for the blocks seems to have been quarried in an outcrop 2 km away, as the geological survey was able to detect.¹⁴ Both the use of special building material and the size of the blocks attest to the monumental nature of the original building. As regards the relation of these stones to the buildings identified by the geomagnetic and

¹⁰ During the 2008 campaign collecting was conducted over a total surface of 13,508 m², whereas in 2009 the surveyed surface area was 15,643 m².

¹¹ The squares were denominated according to a system of letters along the N-S axis, and of numbers along the E-W axis.

¹² See above, footnote 3. Note the preservation of the stones in Meriggi 1971, Pl. X.2.

¹³ Another twenty of so large or medium sized blocks, probably belonging to this structure, can be recognised in the area.

¹⁴ Salvini, this article.

geoelectric surveys¹⁵ (figs. 7 and 8) in this eastern area of the terrace (consisting of two large and regularly planned buildings and, close to the slope of the terrace, a fortification system), we can only say that their position and orientation fit better with the southern building (fig. 10) rather than the supposedly defensive wall. Thus, if Structure 1 were a gate, it might have been the entrance to this building.

Other groups of stones and individual stones were also observed and mapped in the 2009 campaign. These offer evidence of the presence of probably quite long-lasting buildings in the höyük, which can be assigned to the Hittite period on the basis of the cutting and polishing techniques employed. In particular, three large-sized and well dressed blocks are worked on the external surface with a square groove in correspondence with one of the corners (fig. 5). Stone 2 is the biggest¹⁶ and is situated on an elevation on the south-western side of the terrace but is most probably out of place (fig. 12). This stone, which is of a different type of granite¹⁷ than the blocks of Structure 1, shows a carving technique which is probably Hittite. The other two stones displaying the same carving technique are much smaller in size. Stone 3 is situated on the western boundary of the höyük, at the edge of the road, and seems to be still *in situ*, whereas Stone 4 is situated to the south and seems to have been moved from its original place.

Moreover, it was from the interpretation of geomagnetic and geoelectric data that we were able to obtain important information concerning the nature and the typology of the detected remains.

On the north-eastern slope of the terrace a series of rectangular rooms has been identified, irregularly aligned, forming a “saw-tooth” profile, that can be interpreted as a casemate of a city fortification line. The typology, the dimensions,¹⁸ and especially the “saw-tooth” alignments of these rooms allow us to establish a comparison with the fortifications of the Hittite period attested at Alişar Höyük (von der Osten 1937: 4-10).

Furthermore, on the geomagnetic plan a large rectangular structure (fig. 7) could clearly be observed on the north-eastern slope, consisting of a passage, that measures at least 2.4m in width, flanked by two quadrangular constructions composed of small rooms. This structure is perhaps to be identified as a city gate equipped with towers. Although the typology of this gate is to be found in Hittite architecture, both the interior tripartite subdivision and the unusual width (13m) of the eastern tower prevent us from finding any precise parallels¹⁹.

¹⁵ Carpentiero, this article.

¹⁶ This stone had already been identified during a preceding survey (Summers, Summers and Ahmed 1995: 56).

¹⁷ Salvini, personal communication.

¹⁸ The rooms measure 2.4 to 3.6m in length.

¹⁹ At Alaça Höyük, Alişar Höyük, Kuşaklı-Sarissa the city gates are equipped by towers with an interior bipartite subdivision, the dimensions of which indicate standardisation, that is 9 to 10m in length (Koşay 1966: 124-125; von der Osten 1937: 4-10; Schachner 1998: 129-135; Schachner 1999: 69-79; Mielke 2004: 146-157).

The two large constructions²⁰ detected by the geoelectric survey (fig. 10) are both situated on the north-eastern area of the lower terrace, the one indicated as Building I close to the north-eastern city gate, and the other one, called Building II, to the south-east of the former.

The number of rooms²¹ that seems to compose the buildings, but primarily their considerable dimensions (Building I: around 710m²; Building II: around 875m²), strongly suggest a public rather than a domestic destination.

From their plan, these two structures reveal very different characteristics. While Building I has a quite a regular arrangement, inscribed in a 25x28m rectangle, Building II shows a mostly irregular plan that seems to be the result of the juxtaposition of different blocks. The north-western one can be seen particularly clearly on the geoelectric plan. Here is possible to distinguish four long and narrow parallel rooms, which recall the storage rooms of the palaces of Alaça Höyük and especially the four rooms of the northern wing of the level III palace at Maşat Höyük (Özgüç 1982: 73-76).²² Given these comparisons, Building II might be part of a palatial complex.

Building I instead does not show in plan any distinct characteristics that could indicate its nature or typology. Nevertheless, it can be observed that its eastern external wall seems to be parallel to the fortification line, suggesting that they might belong to the same phase.

COLLECTING METHOD (A. D'Agostino)

Systematic investigations have so far concerned the large extended terrace at the foot of the high mound. The survey was focused on the NE and W portions of the terrace and its E-SE low, slightly sloping base, where buried walls and structures have been identified with geomagnetic and resistivity recognition. An intensive sampling strategy of all the artefacts relating to the main topographical or surveyed units was at first aimed at achieving precise spreadsheets of the different categories of finds. As is generally known, the means of estimating the size of a multi-period site in each period of occupation is a systematic collection of all the artefacts, directed towards achieving precise spreadsheets of the different categories of finds. Through the analysis of spreadsheets we are able to understand if there is a differentiation in the distribution pattern of different categories of artefacts and hence infer chronological and functional information. Obviously, there are limits in putting the theory into practice. We have to say that serious limits to a correct understanding of the initial local of artefacts, the original distribution and composition of the archaeological record are posed by post-depositional activities such as human intervention and natural events. In particular, previous visits to the site and collections

²⁰ The limits of each building have been defined on the basis of orientation and morphological and metrical coherence of remains detected.

²¹ In building A at least 10 rooms could be identified, and at least 13 in building B.

²² At Maşat Höyük rooms are larger and measure 17x3m, at Kuşaklı Höyük around 9x1.80m.

carried out in past years, intense agricultural activities and erosion could have resulted in quite marked modifications of the original location of the artefacts and their consistency.²³ In the case of Uşaklı/Kuşaklı Höyük these factors are all documented and observed.

It would, in fact, be more correct to define our activity as a sort of 're-surveying' of the site first covered by unsystematic explorations conducted by travellers and scholars and, in recent times, by American and British colleagues. The collections of surface sherds carried out by O.R. Gurney (1995: 69-72) and then by G.D. and M.E.F. Summers, in the framework of the Kerkenes Dağ Survey Project (Summers et alii 1995: 53-59), provided us the first organised pieces of information concerning the main phases of occupation. These first data collections were able to document that the major period of occupation was the 2nd millennium BC, followed by a later occupation (Iron Age, including Achaemenid up to the Roman/Byzantine periods) mainly involving the high mound and portions of the lower terrace, the limits of which have not yet been established.

Keeping this in mind, and conscious of possible bias in the displacement of artefacts, we decided to start the intensive collection, even though the disposal and concentration of sherds could only provide us with a map of areas in which the reliability of the deposit had to be verified by statistical analysis, separating the deposit coming from the buried strata of the deposit caused by disturbance. We should also note that the intensive collection strategy applied could in part also help reduce the disadvantages resulting from reduced visibility factors. In fact, the presence of relatively dense vegetation (residuals of the crop season, ears, stems and dry straw as well as some herbaceous plants) covering most of the terrace during the 2008 campaign partially reduced the visibility of the soil. We decided to partially clear each square of vegetation with the use of rakes, being careful not to remove sherds or other artefacts: in so doing, the heap of vegetation removed was also examined for possible sherds unintentionally dug up. This method was applied to of the single collecting units. During the 2009 campaign, the increased visibility due to the absence of cultivation residues and to recent ploughing activity over a large portion of the lower terrace, facilitated the collection of sherds and made our task both easier and quicker.

The collection was carried out on three separate portions of the flat surface constituting the top of the terrace and its low slope that gradually descends to the valley floor. Only a handful of noteworthy sherds were gathered from other sectors of the site, in particular on the slope of the high mound, and located on the map with the total station.

Our field method involved sampling survey units established on the basis of morphological characteristics and following, on the flat areas, the general topographical grid. The method applied was based on dividing up the surface into squares or irregular discrete units from which all the artefacts and diagnostic sherds were collected. The intensive collecting involved full coverage of 39 squares of 20x20 m and 6 survey sectors on the low slope, leading off the terrace limit fanwise (fig. 13). As regards the top of the

²³ Speaking generally once again, it is also true that, in the case of a multi period and extended site, erosion and ploughing affect the archaeological deposit but, at the same time, expose archaeological remains through the removal of vegetation and the disturbance of buried strata, periodically bringing new sherds to the surface.

terrace and the low northern slope, within the 20x20 m squares used for the geomagnetic investigations, we laid out smaller regular units, sixteen for each square, measuring 5x5 m. In a different way, we decided to divide the six radial sectors (lots 1-4, -1, -2) on the E-SE slope into five, four and three bands, irregular shaped²⁴ (like segments of a circumference, concentric with respect to the curve of the main mound and lower terrace) in order to fit the collecting grid to the morphology of the slope. In this case we considered as limits of the single unit the main changes in level and agricultural field boundaries. The entire intensively surveyed area where intensive collection was carried out totalled 3ha ca equalling roughly more than 30% of the site coverage.

The team consisted of seven operators on average during the 2008 campaign (six fieldwalkers and one member at the total station), and five operators in the 2009 campaign. Shovels and rods were used to clean the soil of residual vegetation not removed with the rakes. During 2008 campaign the fieldwalkers took nine days to cover the entire area arranged for the collection; seven days during the 2009 campaign. Even so, as the low visibility fields could not be avoided, we attempted to compensate for this bias, reducing the dimension of the area to be surveyed by one person. As regard the campaign of 2008, the average of units surveyed each day was 24.90 on the terrace (4.14 units per person) and 4.44 on the slope (0.70 units per person); in 2009, 73 ca units on the terrace (14.6 ca per person) and 1 on the slope (0.2 per person). Over the course of the first season each fieldwalker attained an average rate of coverage on the terrace of approximately 100m² per day as compared to 360m² in 2009, due to a better surface visibility.²⁵

In each of surveyed units we picked up all the artefacts from the surface.²⁶ Diagnostic artefacts, that is to say artefacts giving information as regard chronology and function of the assemblage, all fragments and lithics, were systematically collected for each surveyed field unit as well as fragments of roof tiles and baked-bricks. During the campaign of 2008 the diagnostic artefacts were marked and mapped.²⁷

SAMPLES ANALYSIS (V. Orsi)

In the course of the two campaigns carried out in 2008 and 2009, a total of approximately 824 Kg of samples were recovered within the surveyed area. The corpus consists mostly of potsherds (17880 potsherds for a total weight of ca. 590 Kg), but also a notable quantity of roof tiles (200 Kg ca) and a few slags (34 Kg ca) were collected (Tab. 1).

²⁴ The dimensions of these units (each lot is divided in different bands, coinciding with different collecting units) vary from 5x30 to 30x50 m. The first band of units, near the edge of the terrace, is narrower; the dimensions increase as we move towards the valley floor. The particular form of sectors -1 and -2 is due to the curvature of the foot of the high mound.

²⁵ The difference of coverage is also due to the fact that during the second part of the 2008 survey more time was dedicated exclusively to the collection of sherds rather than other activities, such as the arrangement of the topographical grid and geomagnetic investigations that took up part of the crew in the first days. During the 2009 campaign more time was dedicated to weighing, counting and recording pottery sherds.

²⁶ The collection units were given individual names with the use of numbers and letters (20x20 m square labelled with letters and main units of the slope labelled as lots 1-6; 5x5 m square and single small units of the slope labelled with numbers).

²⁷ In the square J19 we mapped all the artefacts to assess the feasibility of a very intensive collecting approach.

The density of roof tiles, of which both flat (*tegulae*) and half tub tiles (*imbrices*) have been found, clearly indicate some form of occupation on the site in 'late' periods (Late Roman/Byzantine), mainly concentrated on the lower terrace (fig. 14). Both flat tiles with squared profile flanges (cut across the top edges) and rounded profile flanges have been found. Finger grooves next to the flanges and incised lines are usually visible on the upper surface of tiles, whereas imprints of chaff and reed ragged lines are recurrent characteristics of the lower surface. Roof tiles are distributed all over the eastern, northern and western sectors of the terrace, but they seem to be particularly concentrated in a few squares of the N-NE sector, mainly in proximity of the terrace border. Among these, a definitely significant concentration is registered in the square F13. As concerns the terrace slopes, roof tiles seem to be homogeneously dispersed all over the south-eastern lots 1 to 4, while they seem to be virtually absent within the southern lots 1 to -2. Even though the presence of Roman or Byzantine structures cannot be excluded, the dispersed distribution pattern on the S-SE slope of the terrace might have resulted from erosion and ploughing, while both 'cappuccina' burials or structures might have been located on the terrace.

The sample of slags includes different variants of melted combustion residuals. The nature of the primary artefacts is not clearly recognisable but a clay material origin is in most cases quite likely. Among these, the remains of burnt bricks and wall elements, identified by the presence of reed impressions on the surface, have been recovered on the SE terrace and on the S terrace slope, and might be evidence of destruction by fire (fig. 14). A valuable concentration of melted residuals from combustion, slag and ceramic waste which in theory might have been related to kiln activities, are concentrated in squares K19, J19 and I19, near the north-eastern slope of the höyük. On the contrary, the distribution within the other sectors of the terrace seems to be mainly scattered. The concentration within the same area of both slags and irregular geomagnetic anomalies could reflect an interconnected phenomenon.

In respect of slags, roof-tiles seem to be widespread over a great part of the terrace. The distribution of both series of samples, probably as a result of modern activities on the soil, may be considered principally homogeneous for most of the surveyed area. However, sectors of major concentration emerge for both samples, but in an essentially diverging area. The two sets of samples could therefore pertain to a non-interrelated order of phenomena, and thus possibly reflect a different chronological phase of occupation on the site.

As concerns pottery, a total number of 17,880 potsherds have been collected. Among these, potsherds valuable in chronological terms, that is inclusive of rim, base, decoration, spout or handle, have been sorted into the diagnostic category (3,335 potsherds); the remaining poorly preserved potsherds have been sorted into the generic category (14,545). The ceramic samples are widespread all over the surveyed area, but the distribution does not seem perfectly homogeneous (see tab. 1 and fig. 14). In the majority of cases, that is 27 units, the total amount of pottery recovered for survey units is between 5 and 10 Kg, followed by amounts between 10 and 15 Kg (19 survey units), and then less than 5 Kg (14 survey units). Only in a few areas did the quantity of sherds amount to more than 15 Kg (6 survey units). A major concentration is registered in the squares at the base of the Höyük (H15), on the S-SE upper slopes of the terrace (band 3 of lots 2 and 3)

and on the NE slope of the terrace (F20), where, according to the geomagnetic survey results, a conspicuous structure seems to be located.

A general classification based on wide-ranging parameters such as fabric typology and wall thickness, has been established to distinguish, as far as possible, common from storage and kitchen wares. A different distribution might reflect a potential macroscopic differentiation in the destination of the surveyed areas. The main ceramic class attested is the Common Ware, of which a total amount of 465 Kg ca has been registered, but a few examples of Storage (119 Kg ca.) and a small percentage of Kitchen wares (5 Kg ca.) have been also recovered.

The distribution pattern of Common Ware testifies to a quite sensible differentiation of the surveyed areas (fig. 15). In comparison with the eastern and northern part of the lower terrace, the concentration on the western part seems to be definitely inferior (see squares L5; L6), while a conspicuous amount of pottery is recorded in the proximity of the base of the höyük (squares H13-H15) and on the upper slopes of the terrace (band 2 and 3 in lots 2, 3 and 4; squares F20), mainly in connection with erosion phenomena. The concentration within the lots -1 and -2 is however inferior to than in lots 2, 3 and 4.

The distribution of Storage Ware (fig. 15) is evidence of a certain differentiation: in a few cases, a greater concentration of storage ware corresponds to a greater concentration of pottery (like in lot 2-band 3 or square F20), but in other cases the concentration seems to be independently high – as in the first band of lot 2 and in the third band of lot 4, on the terrace southern slope, and in square F17, on the northern part of the terrace – or particularly reduced – as in squares G17-19, H14, H16-18 and D9.

The Kitchen Ware (fig. 15 and tab. 1) is attested in small percentages only, but its distribution does not seem related to the main distribution units of pottery. A certain concentration seems in fact to be located within the southern lots -1 and -2.

As regards ceramic technology, with a very few exceptions, sherds seem to be all wheel-thrown.

Plain Ware constitutes the major component of the assemblage of Uşaklı/Kuşaklı Höyük. Finishing usually consists of simple smoothing, but 'self-slips' resulting from wet-smoothing are also well attested. The colours of the clay vary mainly between brown and orange nuances: brown and reddish brown colours seem to be the most widespread, but buff nuances are also attested. Within the Plain Ware sample, standardized 'drab' ware, with uniform grit tempered fabric, can be easily recognized. The scraping marks made by trimming off the excess clay after its removal from the wheel are clearly visible on the surface.

A quite significant component of the Uşaklı/Kuşaklı Höyük ceramic inventory is represented by different varieties of slipped or burnished wares. The most conspicuous is certainly the red-slipped ware. Several variants are, however, attested with regards to manufacture, finishing techniques and colours, indicating different traditions. The colour of the slip ranges from light red/pinkish red or reddish orange to purple red, reddish brown or reddish violet. The slip could be thick and homogeneously applied, probably by dipping, or very thin and unevenly applied, possibly by being wiped onto the surface of the vessel with a cloth or an instrument. The surface can be lustrous or mat. The slip is

usually limited to the outer surface of the vessel or to its sole upper part, covering often a small portion of the inner rim. Among the variants are attested fine tempered sherds with thick light-red/orange slip and deep smoothed surface, purple red/reddish brown and lustrous slip specimens, pinkish wiped slip sherds with chaff fabric, red edged vessels and red-slipped storage jars.

Other types to be mentioned are the orange-slipped sherds, both in fine or rough fabrics; brown ware sherds, with a well-smoothed or slightly burnished surface, common and rough fabrics with yellow or whitish slip and some fine ware sherds with shining micaceous slip, probably to be identified with the Gold Wash Ware.

Painted Ware is documented by different types: common wares with simple red paint traces; bi-chrome painted ware in red and black colours; black painted ware and polychrome painted ware with white background and red and black colours. Furthermore, the hand-made painted ware, characterised by chaff and grits tempers and burnished surface, constitutes a distinct type.

PRELIMINARY REMARKS ON THE CERAMIC ASSEMBLAGE (A. D'Agostino)

Notwithstanding all the above-mentioned elements which result in massive biases in the survey data, a good representative sample of ceramics has been collected. The site in fact is characterised by relatively medium density and spatially extensive scatters. The systematic collection yielded a sufficient amount of pottery to identify the ware and shape groups and, accordingly, to date the occupation of the site and suggest the nature of the settlement during different periods. Dating surface pottery is, however, a challenge, particularly in areas where there is no continuous stratified sequence nearby which has been excavated or, as is the case with the central Anatolian plateau, we do not yet know enough about the different assemblages, as U.-D. Schoop (2009: 146) noted, due to the marked homogeneity that characterised most of the ceramic production over a long period of time. Thus, typological continuity and the slow development of types from the *karum* period onwards limit our ability to date survey assemblages.

Comparisons from Uşaklı/Kuşaklı Höyük sherds and those recovered from excavated contexts showing similar characteristics, such as fabric and surface treatments, constitute the basic method used to date our material. A considerable proportion of the sherds collected can only be dated to very broad periods, or overlaps two or more periods. For the moment we are able to present the ceramics according to very general chronological ranges.

We have assembled a sample of fragments that we believe to be representative of different types found on the terrace. Only a small selection of the repertoire is presented here: the bulk of the sherds will be published in the final report of the Uşaklı/Kuşaklı Höyük survey. The pottery from the survey will be presented according to general chronological phases that we have been able to distinguish.

Up until now, no traces of material dated to the first periods of the Early Bronze Age have been found. The only traces of earlier occupation of the site are a few hand-

made and 'Cappadocian' painted sherds (fig. 18: 1-11), dating to the transition from the Early Bronze Age to the Middle Bronze Age.

The distribution of red-slipped sherds is homogeneous and covers wide sectors of the terrace. In some cases the similarities in shape and manufacturing allow us to establish some comparisons with ceramic types dating with a good degree of reliability to more restricted periods.

Carinated red slipped bowls, often with vertical V-shaped handles (fig. 18: 11-17), are generally good markers of the *karum* (Schoop 2009: 151; Schirmer 1969: pl. 24-25) and Old-Hittite period (Mielke 2006: 149, 123).²⁸ The hole-mouth with half-moon shaped lugs (fig. 18: 18) could be pertinent to the late Early Bronze Age as well as to the Early Iron Age horizons.

The carinated bowls with short vertical (fig. 18: 21-22) or long incurved upper sides (fig. 19: 19-20), usually red slipped on the outer edge or completely slipped, find comparisons in Kuşaklı Höyük/Sarissa (Mielke 2006: pl. 57.44, 58.1, 56.5) and Kinet Höyük (Gates 2006: 305-306), for example. Some types of jars in red slipped ware (fig. 18: 24-29) could be dated to the Late Bronze Age, having comparisons in Kuşaklı Höyük/Sarissa; a similar typology of vessels and rims are documented also during the *karum* period and in the Iron Age. Some spouts (fig. 19: 40-42), vertical handles (fig. 19: 45-48) belonging to jars and special vessels have to be dated to the same span of time (Mielke 2006: 147, abb.142), although some examples could be earlier or later. Spouted jar like n. 30 and beak spouts with tip curved downwards usually occur during the *karum* period: the fragments n. 30, 38 and 47 have a good red polished glossy surface. Six fragments of body sherds (fig. 19: 31-36; fig. 25) and one handle (n. 37) with stamp impressions on them are documented from the *karum* to the Hittite periods (Seidl 1972: A50-52). Among these we have two sherds (n. 31-32) bearing partial impressions of the 'signe royal' (for comparisons see Seidl 1972: A33, 36 and A26; Boehmer and Güterbock 1987: pl. XLII, 328). Five of these sherds with stamp impressions were recovered on the eastern slope of the terrace.

Curved bowls, shallow bowls with thickened rim and curved bowls with in-turned upper side (fig. 21) represent typical findings distributed on the terrace. All these types, with similar tempers and surface treatment, constitute our 'drab' repertoire.

As regards the bowls in 'drab ware', generally buff to brown in colour, comparison with published assemblages establishes a close similarity with ceramic wares and shapes of the Hittite repertoire. Plain small and medium sized bowls with simple and often pointed rims (fig. 20: 49-52), bowls with thickened rims (fig. 20: 54-59), large flat bowls with thickened rim (fig. 20: 60) and large plates (fig. 20: 61-68) are recurrent types in our Late Bronze Age assemblage. It seems that these types have to be dated to the Hittite period, on the basis of the Böğazköy sequence (Parzinger and Sanz 1992: pl. 26.19-27, 38.1-6; Schoop 2003: 173; 2006: 215-239) and building C of Kuşaklı Höyük (Mielke

²⁸ Some specimens continue to be used up until the end of Late Bronze Age, at Kaman-Kalehöyük for example (Matsumura 2005: 305.KL96-M51).

2006: 128-134; pl. 57, 55). Generally it is assumed that the coarse cooking plates (fig. 20: 63-68) are more frequent between the Middle Hittite period and the first part of Empire period. The string impression around the rim attested in several cases is an element the diffusion of which in Bögazköy reached its peak around the middle of 15th century (Schoop 2003: 231-233).

The distribution of carinated medium-large sized bowls with inturned upper wall in plain ware, brown in colour (fig. 21: 80-83), is unclear, but concentrated in a specific area in association with typical 'drab ware' sherds: some comparisons have been found with the layers of Kaman-Kalehöyük dating to the end of the Hittite empire period (Matsumura 2005: pl. 7:KL94-M72) or within level V of Porsuk (Dupré 1983: pl. 19, figs. 113-116), but the association between this type of carinated bowls and drab specimens could be fortuitous.

Our hole-mouth cooking pots (fig. 21: 74-77) usually have a globular body and folded rim. This shape also fits well with the examples dating to the Late Bronze Age contexts.

Sherds of funnel-necked jars, and necked craters, red slipped or in plain ware, could be pertinent both to the Late Bronze and Iron Age horizons (fig. 20: 27-29; fig. 21: 69-73). Some necked jars in common (fig. 21: 71-73) or red slipped ware (fig. 21: 69-70) and craters with black painted motifs (fig. 22: 90-96) are typical of this period and find comparisons, for instance, with Phrygian levels of Bögazköy (Bossert 2000: Farbtabel E: 272, 291; pl. 6, 9, 11, 15, 18, 22, 117-120, 123, 133), Alişar Höyük (von der Osten 1937: fig. 445-471) and Kaman-Kalehöyük (Matsumura 2005: pl. 134.KL-P63abc/P90;88-1023).

Storage jars and *pithoi* (fig. 25), in common and red slipped wares, cannot be dated with certainty exclusively on the base of the morphology. In some cases, the use of both red slip and white/buff slip on the rim or below it (fig. 24: 133-134), offers comparisons with specimens documented at Kuşaklı Höyük/Sarissa and Bögazköy (Mielke 2006: 142; Müller-Karpe 1988: 146, pl. 48).

Iron Age period sherds show no specific concentration in any area, which may be the result of modern agricultural disturbances and erosion. Near the base of the slopes of the high mound, and on different points of the terrace, we found painted sherds with black colour (Alişar IV type) (fig. 22) dating to the Middle/Late Iron Age. Also documented are painted sherds with a white background and red and black colours (polychrome ware) (fig. 22: 101) and probably an example of bichrome ware decorated with a band and concentric circles (fig. 22: 99). No hand-made Early Iron Age sherds have been found during the survey. Rim sherds, often ledged, of craters and open mouthed closed vessels, occurring in a wide range of sizes and forms, are typical of Iron Age, from Early to Late Phrygian, levels and find comparisons in Gordion (Sams 1994: figs. 34-55) and Bögazköy (Bossert 2000: pl. 5-26). The repertoire of painted bowls, jars, craters and handles finds good comparisons in Bögazköy Phrygian levels (Bossert 2000: pl. 63-67, 75) and other sites of the central plateau where a Middle/Late occupation has been documented.

Several groups of sherds presenting recurrent characteristics in terms of morphology and technology are probably to be dated to the 'later' periods, given the lack of *comparanda* with the repertoire excavated in other sites of central Anatolia dating to 2nd/1st millennium. However, it should be noted that the remarks offered here are to be considered

as preliminary proposals open to future modification when an in-depth study of the collected samples from the site is conducted and provides more substantial information.

Considering the preliminary stage of our study on the pottery repertoire, it is more problematic to date a group of sherds belonging to small necked jars characterised by a thin wall (fig. 23: 119-123) and some bowls in plain ware with ribbed rim (fig. 23: 113-114) or thickened grooved rim (fig. 23: 115-116). All these types, together with some types of handles (fig. 23: 125-132), likely belonging to Late Roman/Byzantine amphoras and middle sized jars, share similar characteristics in their manufacturing, whilst the morphology and technology indicate a move away from the types that we have preliminarily dated to the Middle/Late Bronze Age and to the first part of the Iron Age. Preliminarily, we could try some general dates: red-orange slipped table-wares (fig. 23: 105-106) could be specimens or imitations of later Eastern red slipped ware; fine bowls (fig. 23: 110-112) could preliminarily be dated to the Late Iron Age/Hellenistic periods; ribbed rim bowls find comparisons in level III of Porsuk (Dupré 1983: fig. 76, 108-109) but a later date cannot be excluded. Some of the shiny and well-smoothed slipped wares (whitish and pale yellow, red, orange) might well belong to this late period whereas some doubts arise regarding two small thin bowls (fig. 23: 107-109) that probably could be considered a fine production dating to the Middle/Late Bronze Age (Dupré 1983: 29 and pl. 5, figs. 11-13) or Iron Age.

These sherds documenting a late occupation dating from late Iron Age onwards till the more recent Late Roman/Byzantine periods are scattered mainly on the western portion of the terrace, although a fair number have also been noted in the northern sector. Roof tiles, representing sporadic traces of the late occupation in the Roman/Byzantine period, are similar to specimens found for example at Amorium, in the Afyon region (Witte-Orr 2007: 295-308): tiles both with cut flanges and others with rounded upper edged flanges document occupations at the sites probably around 5th and 8th centuries AD the Late Byzantine period. Finger groove decorations and footmarks are also documented on the upper surface of some tiles.

The presence of a fragmentary ring base in Glazed Ware with blue floral decoration on a white background, probably dating to the Seljukid/Medieval (?) period, is amongst the more recent artefacts found at the site.

REMARKS ON POTTERY DISTRIBUTION (A. D'Agostino, V. Orsi)

Some sectors of the site show traces of heavier occupation in certain periods. In fact the assemblage collected during a survey is not a random sample but is generally dominated by material that lay on or close to the original land surface.²⁹

According to the distribution of diagnostic sherds, the 2nd millennium appears to be concentrated mostly on the low slopes of the terrace.

²⁹ For issues concerning depositional processes and post-depositional problems see Taylor 2000: 16-26.

It is often difficult to draw a clear distinction among the different phases of 2nd and 1st millennium and, at the moment, we are not able to assert if our red slip ware sherds belong to the Middle/Late Bronze Age horizon instead of the Iron Age. We can only highlight that the majority of the diagnostic sherds seem to have good parallels with types found at Middle Bronze Age/Late Bronze Age sites. In many cases, however, this does not exclude the possibility that they may instead pertain to the Iron Age horizon. We have some types that we can hardly consider chronological markers of a century as they are represented in 2nd millennium assemblages of all periods. This difficulty is related mainly to the sherds with red slip and some types of vessels which continued to be in use until the Late Bronze Age.

The correspondence of 2nd millennium sherds and some buried structures identified by the geomagnetic survey can hardly be considered fortuitous. In particular, the density of Drab Ware diagnostic sherds (fig. 16) over a limited area of the northern and eastern slopes (collecting units F19-20 and lot 2, bands 2, 4; lot 3, bands 2-3), may suggest, as a preliminary consideration, that architectural remains appearing beneath the surface might belong to the Late Bronze Age period. A noteworthy density of Drab Ware sherds has been found at the foot of high mound. Red slipped ware were found fairly evenly across the entire mound with a major density on the south-eastern slopes of the terrace (lots 1-4), where a fair number of diagnostic sherds, such as bowls with triangular handles (fig. 15) and sherds with impressed stamps, probably dating to the *karum* period, are also mainly distributed.

Hand-made sherds, probably to be dated to the transitional period between the Early and the Middle Bronze Age, have been found mainly on the terrace with a noteworthy concentration at the foot of the high mound and at the base of the northern terrace slope (fig. 17). Instead the later sherds are homogeneously dispersed over the terrace.

The first season of surveying provided us with the first pieces of systematic information about the occupational history of the mound. Subsequent analysis of the ceramics suggest the site was mainly occupied from the end of the Early Bronze Age to the Byzantine period, with an intensive occupation during the 2nd millennium.³⁰ The majority of diagnostic sherds collected during the first two seasons of work can be assigned to this period. A discrete number of sherds dated to the later periods (Middle Iron Age-Byzantine period) was also acquired mainly on the top of the terrace and in proximity of the high mound slope, while only a handful of sherds (end of Early Bronze Age) document the earlier occupation of the site. To date we do not know whether there was a break in the occupational sequence of the site.

³⁰ A simple walk around the lower city suggests that the extent of the 2nd millennium settlement covered all the terrace and its slopes.

THE CLAY BULLA UK09.OB.1 (S. Mazzoni)

The clay bulla was found on the northern outer slope of the terrace (fig. 5) in the course of a systematic collection of materials in grids coordinated with the geo-magnetic survey that indicated the presence of quite a large building. The sealing³¹ (fig. 26) consists of two impressions set at 90 degrees on a lump of clay; only one (a) has preserved the complete drawing of the original seal, while the second (b) shows only a small sector preserved. The readable impression (a) was made by a circular stamp with a slightly ridged and grooved base. The field is framed by an arc of a guilloche and an arc of spirals. In the middle there is a motif which is partially eroded and not deeply impressed. We can, however, identify on the top left a stylised head (?) facing left whereas the right part of the drawing is more damaged and only traces of the design can be cautiously recognised as a head (?) facing right. They are connected in the middle to a horizontal line over a vertical spiral-like motif. I would tentatively suggest a double-headed eagle with spiralled body and open wings, but the quite different rendering of the motif on the top right could indicate a different animal's head (lion?). Other interpretations cannot be ruled out, such as a stylised animal head or a hieroglyphic sign. The presence of the girdle constituted half by a guilloche and half by a spiral design does allow quite precise comparisons with old Hittite stamps; for example, there is a quite similar stamp seal from Hattuša dated by R.M. Boehmer to the 2nd half of the 17th cent. with a frieze composed of a spiral with three volutes and a guilloche (Boehmer 1987, 43, 45, no. 105, Pl. X).³² A bulla from the Palace of Level I of Konya Karahöyük (Alp 1968, 38, 181-182, no. 70, fig. 82, p. 38, Pl. 74/195, from Area L, Level I, Room 6 [Inv. Nr.55/253]; Boehmer 1987, Fig. 23a) presents two frames both made with a girdle composed of half spirals and guilloches; in the middle there is an eagle with two heads, spread wings and the body rendered by a spiral. The vertical spiral motif of our bulla fits better with this spiral rendering. Different motifs and symbols are usually drawn in the centre of these stamps (altars, hands, heads of different animals, hieroglyphs) which may often be rendered in a rather crude and schematic manner and cannot be identified easily. The seals of this group are attributed to the Old Hittite period, around the 17th-16th cent. B.C.; a date in the second half of the 17th cent. has been proposed for the Hattuša seal and can also be proposed for the Karahöyük bulla on the basis of its find context.³³

³¹ The colour of the sealed area is Munsell 7.5YR5/1; the colour of the clay is Munsell 2.5YR3/2.

³² See comparisons: 43, Figs. 23, 28. Seals showing friezes with a more complex design with an entwined spiral can also be dated to the 16th cent.

³³ In the Level I palace two old Syrian style cylinder seals were also found (central room: 117-119, no. 7, Inv. Nr. 55/56, pls. 11/23; Room 1: 26-27, 131-132, no. 36, Pl. 46/110) and a Syro-Hittite seal (sealings found in rooms 3 and 7: 25, 122-123, no. 15, Inv. 55/189, Pls. 39/96, 40/97-98); they also suggest a 17th cent. B.C. date.

THE HITTITE TABLET UK09.OB.2: A PRELIMINARY ANALYSIS (C. Corti)

On September 3, 2009, during the routine collection of materials on the surface of the southern area at the base of the Uşaklı/Kuşaklı Höyük mound (fig. 5), Valentina Orsi found a fragment of a Hittite cuneiform tablet (fig. 27).

The piece is extremely burned – to the point that several parts are in an advanced state of vitrification – probably due to a violent fire; the overheating was so strong that it literally liquefied the clay on part of the left edge that, consequentially, melted along the anterior face, covering the beginning of the lines.³⁴

The tablet measures 7.9 cm h. x 8.3 cm w., and the maximum thickness is 4.3 cm. Two faces are partially preserved. The colour of the obverse is light reddish brown (Munsell 2.5YR 7/4); the reverse is light gray (2.5Y 7/2); the edge and the initial part of the obverse are weak red (2.5YR 5/2).

The fragment, which has been preliminarily labelled with inventory number UK09.OB.2, presents writing on both sides. The distinction between the obverse and the reverse is proposed based on the different form of the faces since this is not definable from the context: the obverse has a surface that tends towards flat, the reverse is convex.

Since the left edge narrows in the upper part of the fragment, the obverse must belong to the first half of the tablet and, consequently, the reverse to the lower half, even though it is not possible to quantify the distance from the end. Additionally, given the thickness of the inner part, it is held that originally the tablet was made up of at least two columns on each side.

The obverse of the tablet is composed of 13 lines and, approximately, from two to five signs of the beginning are missing (due to the melted clay); on the reverse, the start of 14 lines is preserved.³⁵

Concerning the typology of the document, it could be a magical ritual (see the mention of the “tongue” in obv. 2’, the “soul” in the rev. 4’-5’ and of the “clay statue” in rev. 10’) but, at the moment, we cannot confirm this suggestion with any certainty, the tablet being very fragmentary.

The “Sun god of the Heaven” is cited two times (obv. 3’, 5’) and the word “Earth” is cited several times (obv. 6’, 12’, rev. 6’-7’) in the document; we can also find two personal names (female in rev. 8’ and male rev. 9’), partially *in lacuna*.

In a preliminary way, we can date the fragment between the 14th and the 13th cent. B.C., that is, in the Hittite chronology, the Imperial period.³⁶

³⁴ During the 2008 and 2009 campaigns, numerous bricks and slags were found in the area that had undergone the same transformation processes as those observed for the tablet.

³⁵ In the last line, the beginning of two extremely damaged cuneiform signs can be made out.

³⁶ The complete edition of the text will be published by the mission’s team of philologists, composed, in addition to the writer, of Prof. Franca Pecchioli Daddi (University of Florence) and Dr. Giulia Torri (University of Florence); associated with this group is Prof. Alfonso Archi (University of Rome, La Sapienza).

The tablet was found in the section of the southern slope in correspondence with the point in which the terrace of the “lower town” finishes and joins the mound of the “upper town”. I believe it is possible that the fragment slid into such a low zone of the mound due first to a “runoff” effect and then due to subsequent agricultural activity. In my opinion it could come from the south-eastern area of the upper mound; this hypothesis would find correspondence in the synthetic description of the discovery site of the tablet that I recently published in KBo 52 with number 280³⁷ and which was definitely found at Uşaklı/Kuşaklı Höyük (Summers, Summers, Ahmet 1995: 55): “Ostabhang des Hoyuks ostl. von Taşlık”, according to the information reported by Otten, on indications of Cornelius.³⁸

It can be added that, in various points of the same zone, there are clear traces of remains of burnt mudbrick structures. Therefore, in my opinion, the archive could be located in that area and the two tablets have effectively come from there. Obviously, this is merely a working hypothesis that could only be confirmed by systematic excavations.

CONCLUSIONS (S. Mazzoni)

The materials collected in the survey of Uşaklı/Kuşaklı Höyük and its adjacent area give evidence of a continuous occupation of this sector of the plain from the 2nd millennium BC to the medieval period. The *floruit* of the occupation was most probably reached during the Late Roman and Byzantine period. The site has provided materials, pottery and tiles over all the lower town or low terrace extension and its outskirts. Scatters of materials (tiles and pottery) were also found in the hills to the south of the site and in the adjacent valleys and hillocks. Large well-dressed blocks are scattered over the gentle hills limiting the site to the south. These stones, a few of them probably reused by older Uşaklı/Kuşaklı Höyük buildings of the Hittite phase, can be attributed to a possibly not too ephemeral farmstead. The occupation of the Late Roman period might have been connected to the intensification of land exploitation and agriculture to obtain mainly crops, barley and wheat, a process which is well documented in other regions of the central Anatolian plateau for the same period.

In the Iron Age the area was apparently little settled; no mounds or scatters of materials belong clearly to this phase. Uşaklı/Kuşaklı Höyük produced sparse and not abundant materials belonging to the later Iron Age and the Phrygian period which were collected near the base of the central mound but also in the outer fields and might have come from the central mound itself. However, although it would appear quite logical

³⁷ Corti 2009: Inhaltsverzeichnis XII Nr. 280 (comment and bibliography), 51 (autography). Information on the discovery of this fragment can be found in Cornelius 1964: 12.

³⁸ For the history of the exploration of the site and for the edition of KBo 52.280, see C. Corti, “The History of the Exploration of Uşaklı/Kuşaklı Höyük (Yozgat) and the ‘Rediscovery’ of a Middle Hittite Tablet”, in preparation. The manuscript of H. Otten, with the transcription «in the field» and the relative note on the discovery site are conserved at the Akademie der Wissenschaften und der Literatur, Mainz.

the Phrygian settlement on the central mound, we cannot de facto exclude the possibility that it extended over a wider area including part of the terrace or lower town.

The second *floruit* phase of the site was reached in the Hittite period, in the course of the entire 2nd millennium B.C. During this period the site already covered more than 10 ha. The fact that most of the Old Hittite and even earlier materials, such as Cappadocian and red slipped Kültepe wares, were found on the outskirts of the terrace can substantiate the hypothesis of a large settlement consisting of a lower town and an acropolis already during this older phase. This is however the extension that the site had in the Hittite imperial period, as documented by the surface materials. The geo-magnetic and resistivity survey provides evidence of large buildings on the terrace and its adjacent edges; their plans and regular walls, their size and the division into different units of rooms can be better compared with ceremonial and institutional buildings of the Late Hittite period. The fact that a curtain of casemate walls and possibly a gate can be seen on the eastern side of the outer terrace and that structures of a certain complexity and size can be seen beyond the edge of the terrace indicates that the town's outer limits were well beyond the edge of the outer terrace. The terrace thus seems to be constituted by the settlement of both the Imperial Hittite and the Old Hittite phases covered by an apparently not high deposit belonging mainly to the Roman period. Instead, no materials of the Old Hittite or Imperial periods have yet been collected in the territory, a fact which seems to indicate that, in the course of the 2nd millennium B.C., occupation might have been concentrated only in the town of Uşaklı/Kuşaklı Höyük while in the surrounding land it might have been of a rather ephemeral and sparse nature, not easily detected by the survey.

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TABLE 1. ARTEFACTS RECOVERED IN 2008/2009 (NUMBERS AND WEIGHT)

* Preliminary labelling of Survey Units as in 2008 (Mazzoni *et alii* in *31.Kazı Sonuçları Toplantısı 2009*)

** Samples cumulative number for Survey Units; *** Samples cumulative weight (in kg) for Survey Units

| <i>Survey Units</i> | Preliminary Units 2008* | Diagnostic Sherds ** | Generic Sherds ** | Sherds – total ** | Common Ware – total (kg***) | Storage Ware – total (kg***) | Kitchen Ware – total (kg***) | Sherds – total (kg***) | Tiles (kg***) | Slags (kg***) | Year |
|---------------------|----------------------------|-------------------------|----------------------|----------------------|-----------------------------------|---------------------------------|---------------------------------|---------------------------|---------------|---------------|------|
| D9 | | 29 | 267 | 296 | 7,255 | 0,78 | 0,104 | 8,139 | 0,15 | 0,06 | 2009 |
| D10 | | 11 | 198 | 209 | 5,76 | 1,6 | 0,016 | 7,376 | 5,98 | 0,1 | 2009 |
| D14 | | 27 | 177 | 204 | 6,09 | 1,5 | 0,46 | 8,05 | 2,28 | 0,02 | 2009 |
| D15 | | 21 | 252 | 273 | 6,48 | 3,94 | 0,245 | 10,67 | 0,65 | 0,35 | 2009 |
| E16 | | 30 | 298 | 328 | 9,3 | 3,98 | 0,02 | 13,3 | 8,51 | 2,73 | 2009 |
| F13 | | 28 | 275 | 303 | 7,88 | 2,15 | 0,498 | 10,53 | 28,44 | 0,34 | 2009 |
| F14 | | 25 | 298 | 323 | 7,37 | 1,92 | 0,29 | 9,58 | 13,52 | 0,14 | 2009 |
| F15 | | 20 | 306 | 326 | 7,28 | 3,04 | 0,04 | 10,36 | 6,67 | 0,01 | 2009 |
| F16 | | 39 | 220 | 259 | 7,16 | 2,66 | 0,04 | 9,86 | 17,52 | 0,15 | 2009 |
| F17 | | 36 | 217 | 253 | 6,555 | 8,88 | | 15,44 | 16,5 | | 2009 |
| F18 | | 23 | 216 | 239 | 5,895 | 1,4 | | 7,295 | 1,78 | 0,36 | 2009 |
| G13 | | 34 | 315 | 349 | 8,835 | 1,68 | 0,22 | 10,74 | 5,46 | | 2009 |
| G14 | | 50 | 304 | 354 | 7,55 | 1,38 | | 8,93 | 0,84 | 0,11 | 2009 |
| G15 | | 70 | 375 | 445 | 11,56 | 1,61 | 0,2 | 13,37 | 1,3 | 0,21 | 2009 |
| G16 | | 44 | 380 | 424 | 9,96 | 1,37 | | 11,33 | 1,29 | 0,11 | 2009 |
| G17 | | 62 | 305 | 367 | 7,4 | 0,49 | | 7,89 | 3,3 | 0,1 | 2009 |
| G18 | | 44 | 220 | 264 | 6,49 | 0,91 | 0,02 | 7,42 | 2,68 | 0,52 | 2009 |
| H13 | | 75 | 330 | 405 | 12,89 | 1,3 | | 14,19 | 0,48 | | 2009 |
| H14 | | 64 | 549 | 613 | 13,06 | 0,88 | 0,015 | 13,96 | 1,04 | | 2009 |
| H15 | | 104 | 585 | 689 | 19,94 | 2,45 | 0,04 | 22,43 | 0,3 | | 2009 |
| H16 | | 77 | 334 | 411 | 6,76 | 0,54 | | 7,3 | 0,2 | 0,045 | 2009 |
| H17 | | 44 | 279 | 323 | 6,76 | 0,89 | 0,04 | 7,69 | | 0,135 | 2009 |
| H18 | | 60 | 271 | 331 | 6,775 | 0,46 | | 7,235 | 11,48 | 1,46 | 2009 |
| L10 | | 11 | 198 | 209 | 6,81 | | 0,24 | 7,05 | 2,88 | 0,013 | 2009 |
| L11 | | 32 | 313 | 345 | 8,265 | 0,4 | 0,12 | 8,785 | | 0,31 | 2009 |
| L5 | | 8 | 109 | 117 | 2,96 | 0,68 | 0,045 | 3,685 | 6,01 | 0,4 | 2009 |
| L6 | | 3 | 128 | 131 | 2,355 | 0,16 | 0,035 | 2,55 | 4,1 | 0,01 | 2009 |
| L7 | | 10 | 153 | 163 | 4,05 | 1,75 | 0,04 | 5,84 | 7,04 | 0,08 | 2009 |
| L8 | | 23 | 162 | 185 | 5,47 | 0,88 | 0,015 | 6,365 | 1,57 | | 2009 |
| L9 | | 32 | 265 | 297 | 8,11 | 4,08 | 0,41 | 12,6 | 1,73 | | 2009 |
| M11 | | 25 | 291 | 316 | 7,34 | 1,25 | 0,045 | 8,635 | 0,32 | | 2009 |
| N11 | | 16 | 173 | 189 | 4,868 | 0,3 | 0,13 | 5,298 | 0,03 | 0,04 | 2009 |
| K19 | A | 65 | 155 | 220 | 6,31 | | 0,18 | 6,49 | 0,30 | 6,82 | 2008 |
| J19 | B | 227 | | 227 | 4,83 | 2,10 | 0,04 | 6,97 | 2,90 | 3,95 | 2008 |
| I19 | C | 103 | 358 | 461 | 6,16 | 1,80 | | 7,96 | 1,13 | 6,40 | 2008 |
| H19 | D | 67 | 276 | 343 | 7,29 | 1,77 | | 9,06 | 12,01 | 2,06 | 2008 |
| G19 | E | 82 | 324 | 406 | 12,03 | 0,20 | | 12,23 | 15,56 | 2,82 | 2008 |
| F19 | F | 96 | 341 | 437 | 10,47 | 1,67 | | 12,14 | 0,86 | 0,18 | 2008 |
| F20 | G | 137 | 396 | 533 | 16,54 | 3,42 | 0,23 | 20,19 | 0,98 | 0,13 | 2008 |

| <i>Survey Units</i> | <i>Preliminary Units 2008*</i> | <i>Diagnostic Sherds **</i> | <i>Generic Sherds **</i> | <i>Sherds – total **</i> | <i>Common Ware – total (kg***)</i> | <i>Storage Ware – total (kg***)</i> | <i>Kitchen Ware – total (kg***)</i> | <i>Sherds – total (kg***)</i> | <i>Tiles (kg***)</i> | <i>Slags (kg***)</i> | <i>Year</i> |
|-----------------------|------------------------------------|---------------------------------|------------------------------|------------------------------|--|---|---|-----------------------------------|----------------------|----------------------|---------------|
| <i>Lot -1; band 2</i> | | 7 | 92 | 99 | 2,35 | | 0,025 | 2,375 | | 0,3 | 2009 |
| <i>Lot -1; band 3</i> | | 7 | 89 | 96 | 2,98 | 0,3 | 0,05 | 3,33 | | 0,8 | 2009 |
| <i>Lot -1; band 4</i> | | 18 | 168 | 186 | 4,88 | | 0,13 | 5,01 | 1,05 | | 2009 |
| <i>Lot -1; band 5</i> | | 16 | 102 | 118 | 3,56 | 0,38 | 0,06 | 4 | | 0,01 | 2009 |
| <i>Lot -2; band 3</i> | | 5 | 32 | 37 | 1,21 | | 0,02 | 1,23 | | 0,4 | 2009 |
| <i>Lot -2; band 4</i> | | 8 | 69 | 77 | 3,08 | | 0,3 | 3,38 | | 0,02 | 2009 |
| <i>Lot -2; band 5</i> | | 8 | 78 | 86 | 2,545 | 0,14 | 0,01 | 2,695 | | | 2009 |
| <i>Lot 1; band 1</i> | 113 | 21 | 59 | 80 | 2,22 | 1 | | 3,22 | 0,2 | | 2008 |
| <i>Lot 1; band 2</i> | 114 | 39 | 71 | 110 | 4,7 | 2 | | 6,7 | 2,1 | | 2008 |
| <i>Lot 1; band 3</i> | 115 | 43 | 129 | 172 | 5,6 | 3,6 | | 9,2 | 0,5 | | 2008 |
| <i>Lot 1; band 4</i> | 116 | 26 | 63 | 89 | 3 | 1,3 | | 4,3 | 1,85 | 1,5 | 2008 |
| <i>Lot 1; band 5</i> | 117 | 34 | 71 | 105 | 2,85 | 2,3 | | 5,15 | 0,85 | 0,32 | 2008 |
| <i>Lot 2; band 1</i> | 118 | 38 | 63 | 101 | 2,94 | 11,05 | | 13,99 | 0,5 | | 2008 |
| <i>Lot 2; band 2</i> | 119 | 90 | 267 | 357 | 11,58 | 3 | | 14,58 | | | 2008 |
| <i>Lot 2; band 3</i> | 120 | 157 | 498 | 655 | 16,43 | 5,6 | | 22,03 | | | 2008 |
| <i>Lot 2; band 4</i> | 121 | 116 | 201 | 317 | 8,4 | 1,78 | | 10,18 | 0,206 | | 2008 |
| <i>Lot 2; band 5</i> | 122 | 89 | 231 | 320 | 8,7 | 1,33 | | 10,03 | 0,24 | | 2008 |
| <i>Lot 3; band 1</i> | 123 | 29 | 66 | 95 | 2,22 | 1,9 | | 4,12 | 1,4 | 0,2 | 2008 |
| <i>Lot 3; band 2</i> | 124 | 74 | 293 | 367 | 9,51 | 2,7 | 0,17 | 12,38 | 0,62 | 0,18 | 2008 |
| <i>Lot 3; band 3</i> | 125 | 153 | 284 | 437 | 15,80 | 2,8 | | 18,6 | 0,3 | | 2008 |
| <i>Lot 3; band 4</i> | 126 | 91 | 203 | 294 | 8,44 | 1,6 | 0,13 | 10,17 | 0,36 | | 2008 |
| <i>Lot 3; band 5</i> | 127 | 29 | 66 | 95 | 2,96 | 0,42 | | 3,38 | 0,2 | | 2008 |
| <i>Lot 4; band 1</i> | 128 | 4 | 13 | 17 | 0,62 | | | 0,62 | | | 2008 |
| <i>Lot 4; band 2</i> | 129 | 104 | 229 | 333 | 11,54 | 2,12 | 0,2 | 13,86 | 0,74 | 0,18 | 2008 |
| <i>Lot 4; band 3</i> | 130 | 75 | 346 | 421 | 10,74 | 6,64 | 0,08 | 17,46 | 0,88 | | 2008 |
| <i>Lot 4; band 4</i> | 131 | 62 | 80 | 142 | 4,38 | 0,82 | 0,01 | 5,21 | 0,22 | | 2008 |
| <i>Lot 4; band 5</i> | 132 | 29 | 69 | 98 | 3,47 | 0,31 | | 3,78 | 0,5 | | 2008 |
| <i>Outside Unit</i> | | 9 | | 9 | | | | | | | 2009 |
| <i>TOT</i> | | 3335 | 14545 | 17880 | 465,6 | 119,4 | 4,963 | 589,9 | 200,5 | 34,07 | 2008/ 2009 |



Fig. 1. View of Uşaklı/Kuşaklı Höyük, from north.

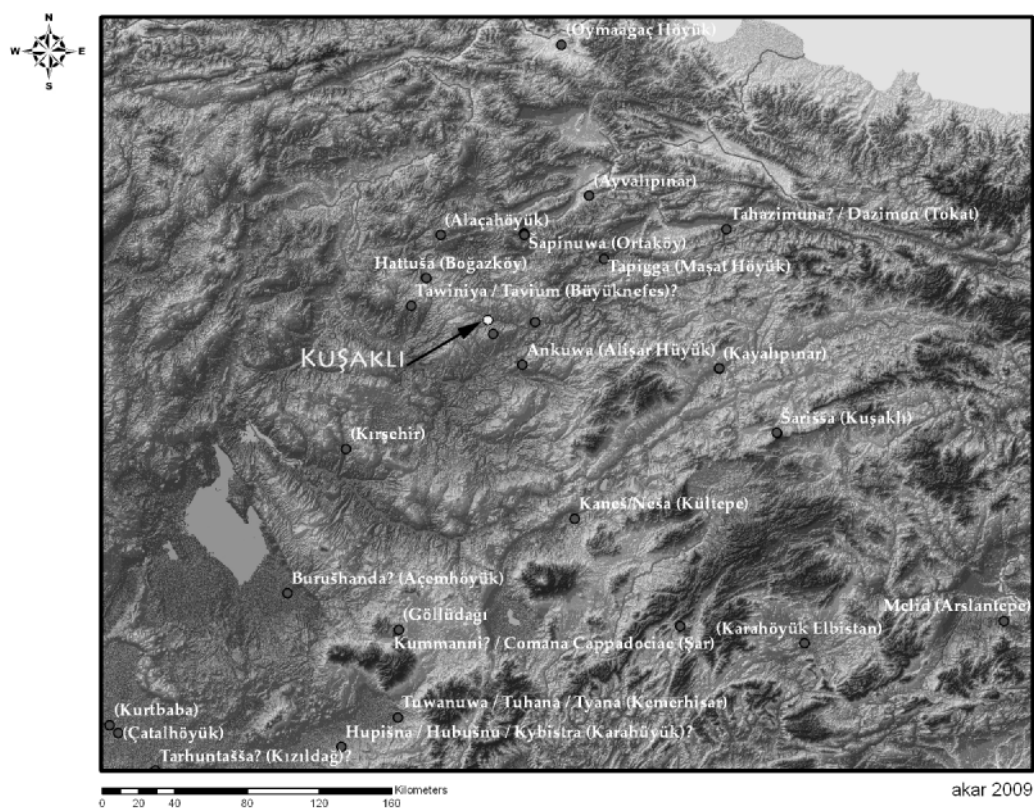


Fig. 2. Maps of Central Anatolian Plateau showing the location of Uşaklı/Kuşaklı Höyük and other sites (by M. Akar).

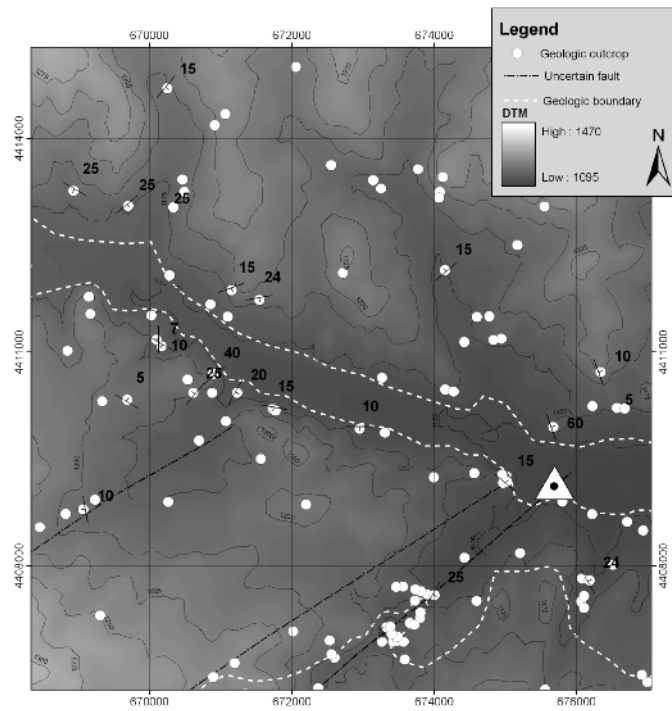


Fig. 3. Sketch map of geologic outcrops, boundaries and faults displayed over the Digital Terrain Model (DTM) (by R. Salvini).

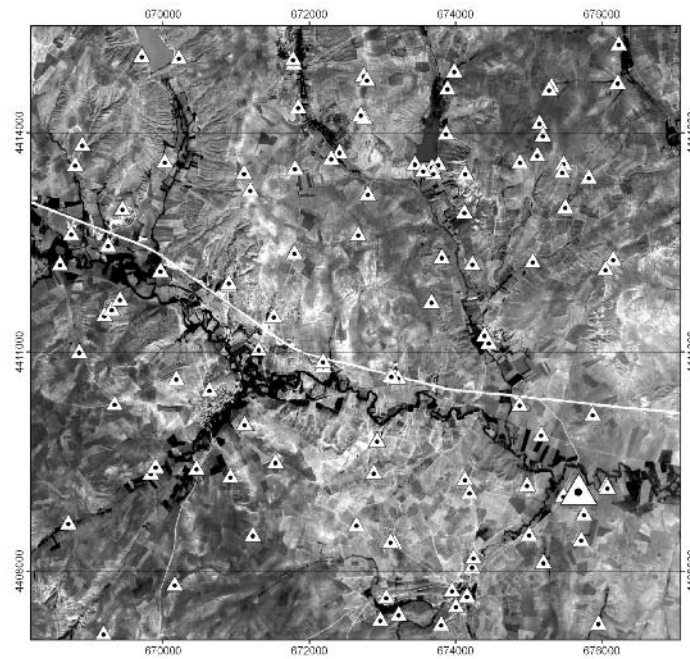


Fig. 4. Spatial distribution of GCPs shown over the GeoEye image (by R. Salvini).

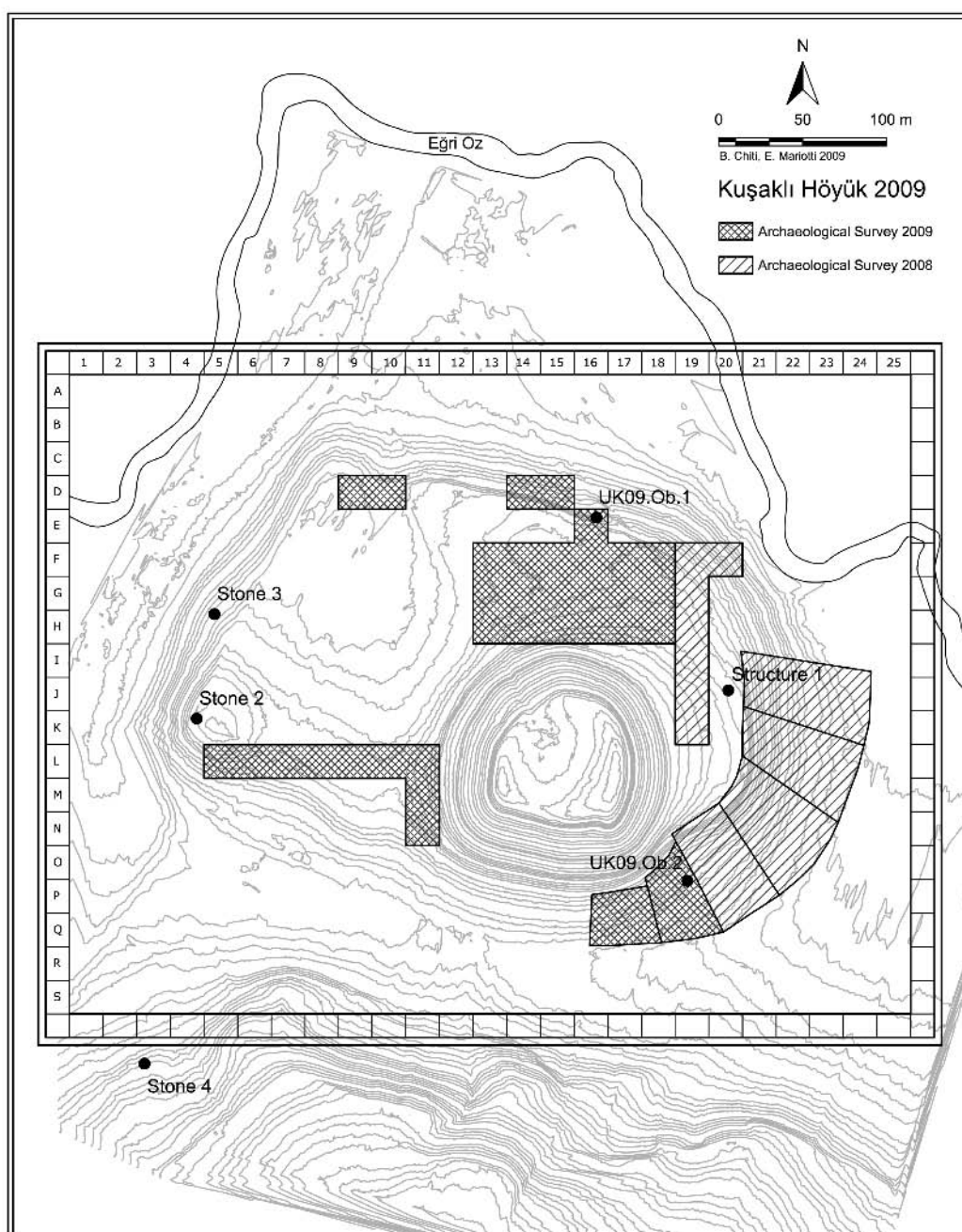


Fig. 5. Topographic map of Uşaklı/Kuşaklı Höyük with archaeological survey areas and location of architectural remains and objects found on the surface (by B. Chiti and E. Mariotti).

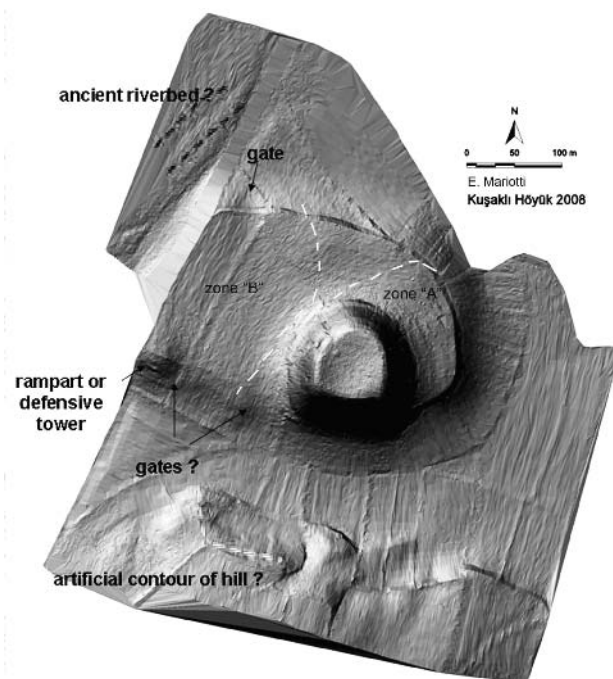


Fig. 6. Three-dimensional model of Uşaklı/Kuşaklı Höyük (by E. Mariotti).

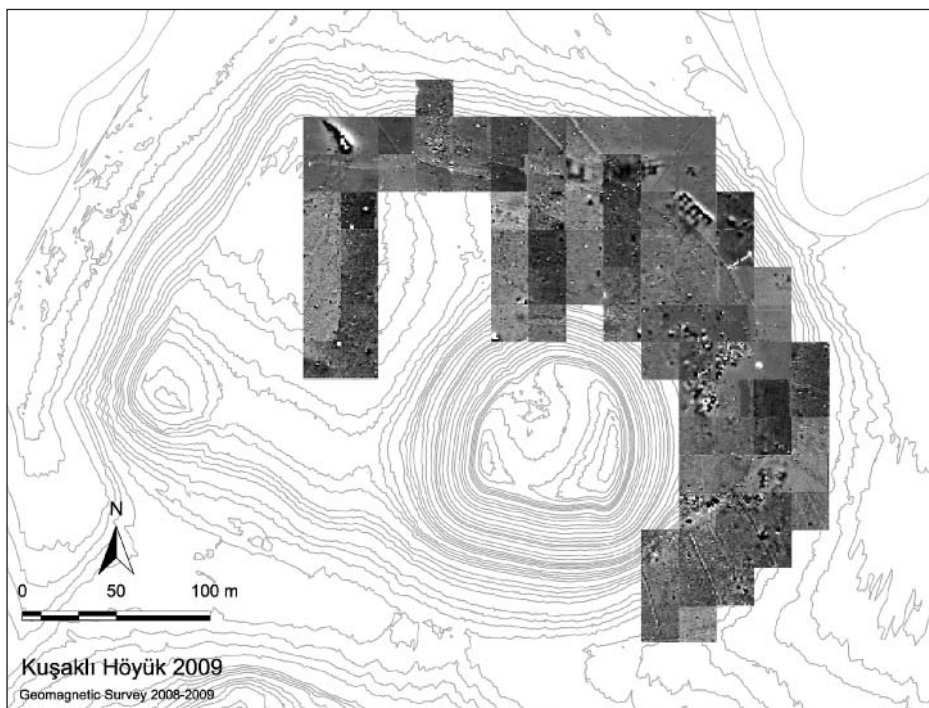


Fig. 7. The 2008 and 2009 magnetic survey (by G. Carpentiero).

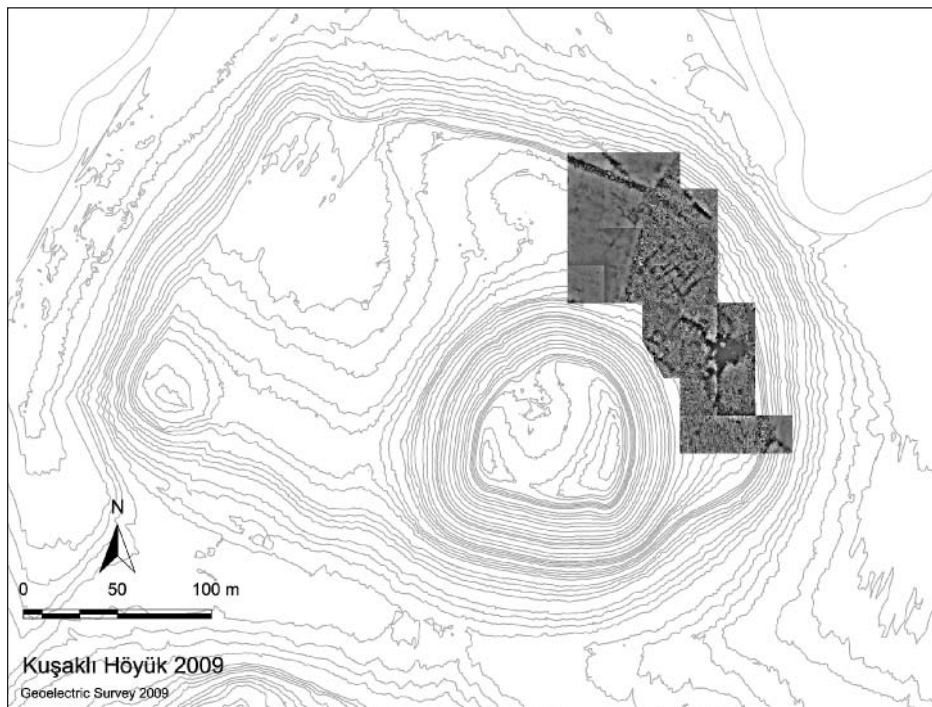


Fig. 8. The 2009 geoelectric survey (by G. Carpentiero).

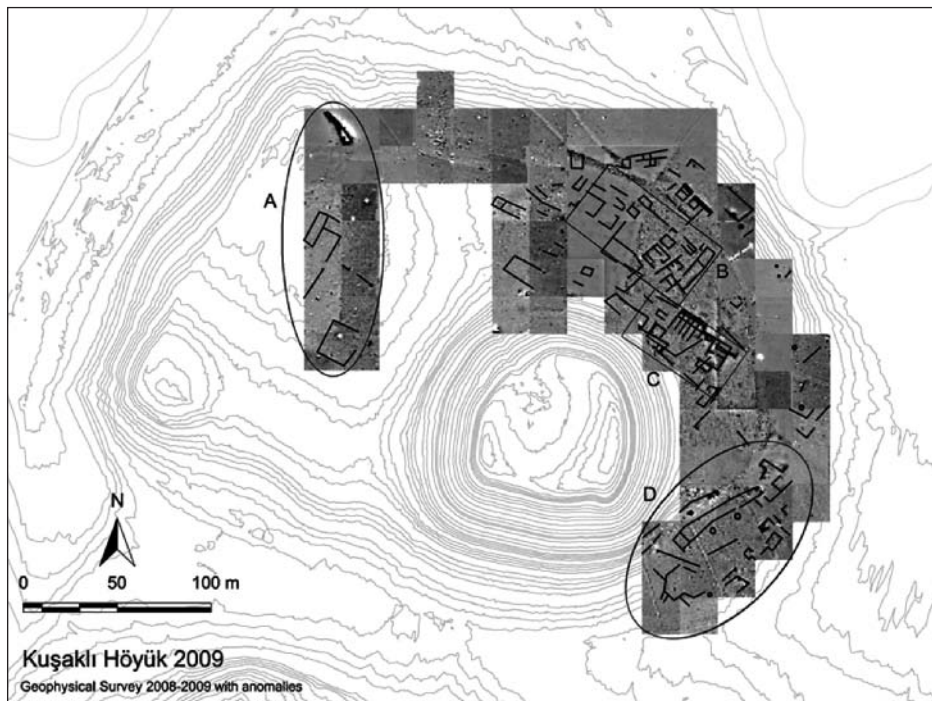


Fig. 9. Interpretation of geophysical surveys with main areas identified (by G. Carpentiero).

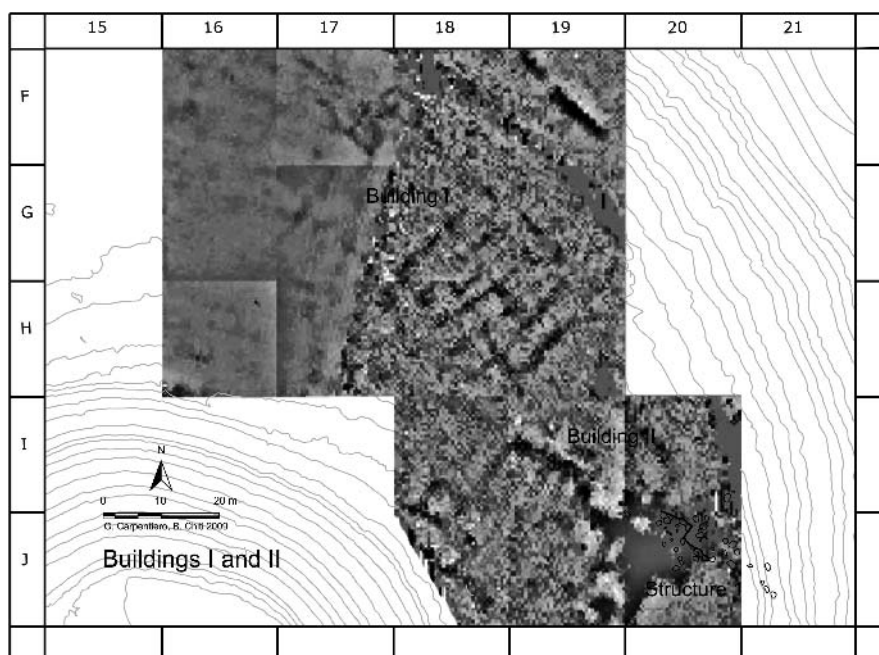


Fig. 10. Detail of the geoelectric map showing buildings I-II and the location of Structure 1 (by G. Carpentiero and B. Chiti).

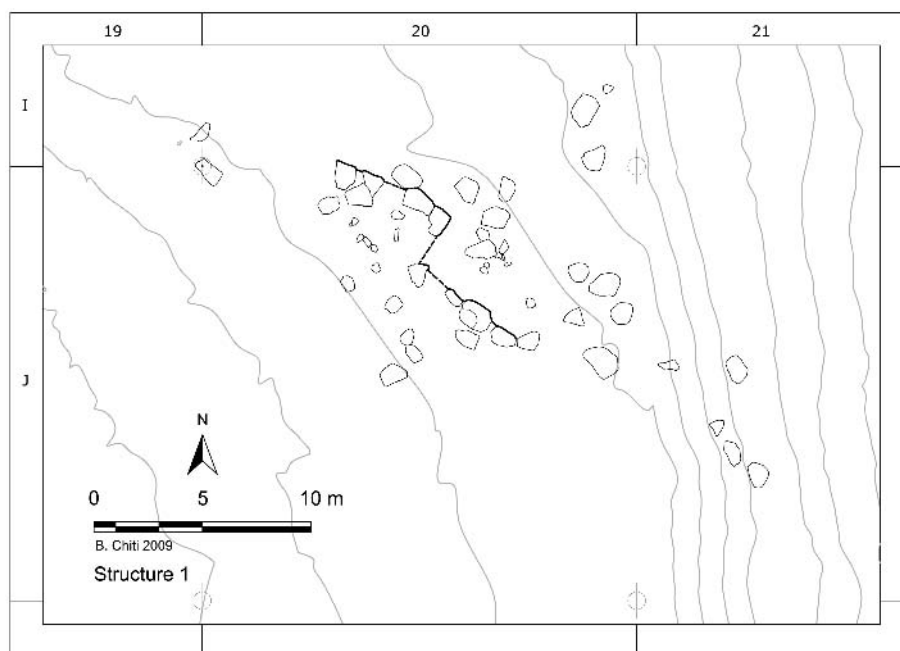


Fig. 11. Structure 1 plan (by B. Chiti).



Fig. 12. Stone 2, from east.

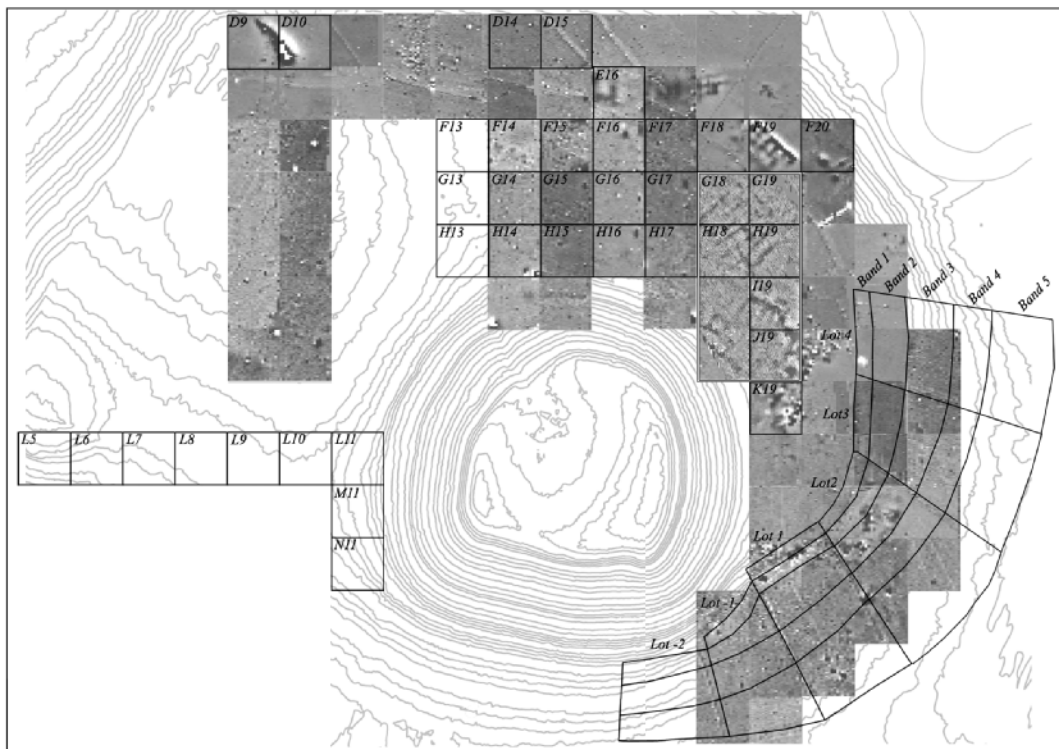


Fig. 13. Collection units.

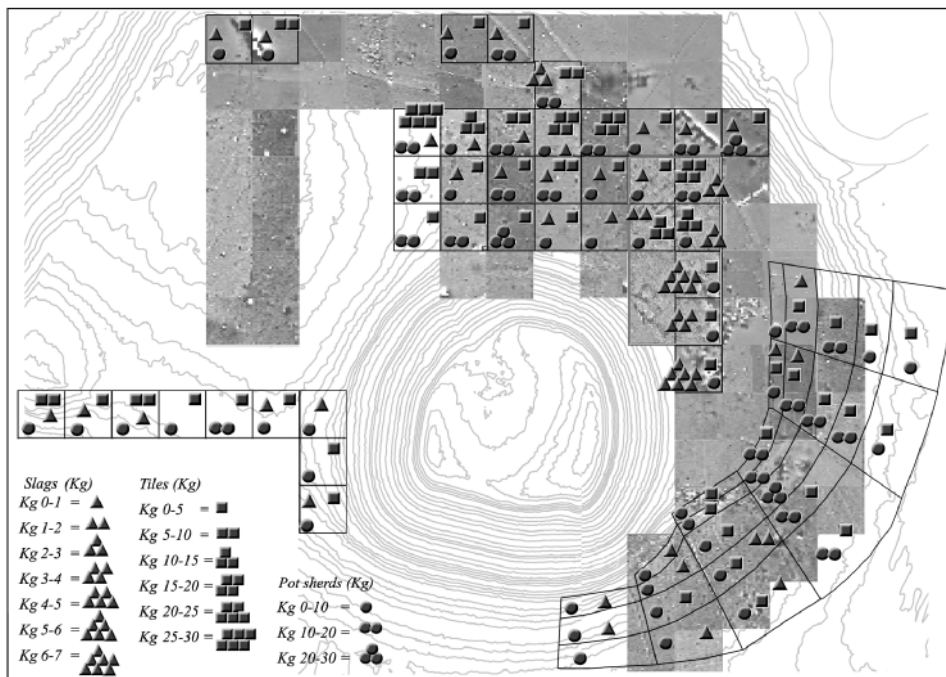


Fig. 14. Spreadsheets 1 (pot sherds, tiles, slags)
(by V. Orsi; graphics adapted from G. Carpentiero and B. Chiti plans).

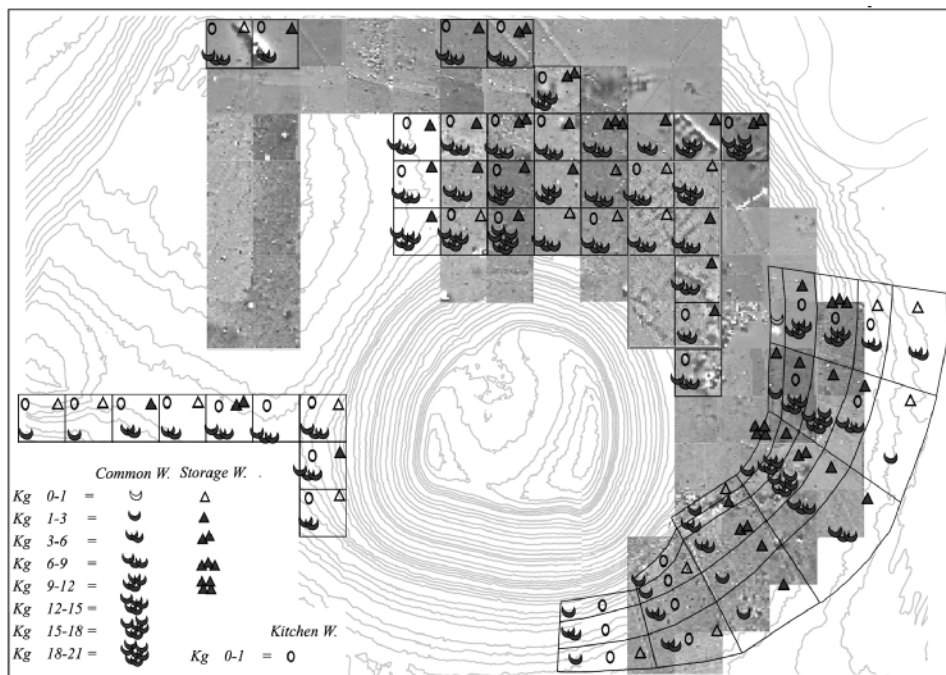


Fig. 15. Spreadsheets 2 (common, storage and kitchen wares).

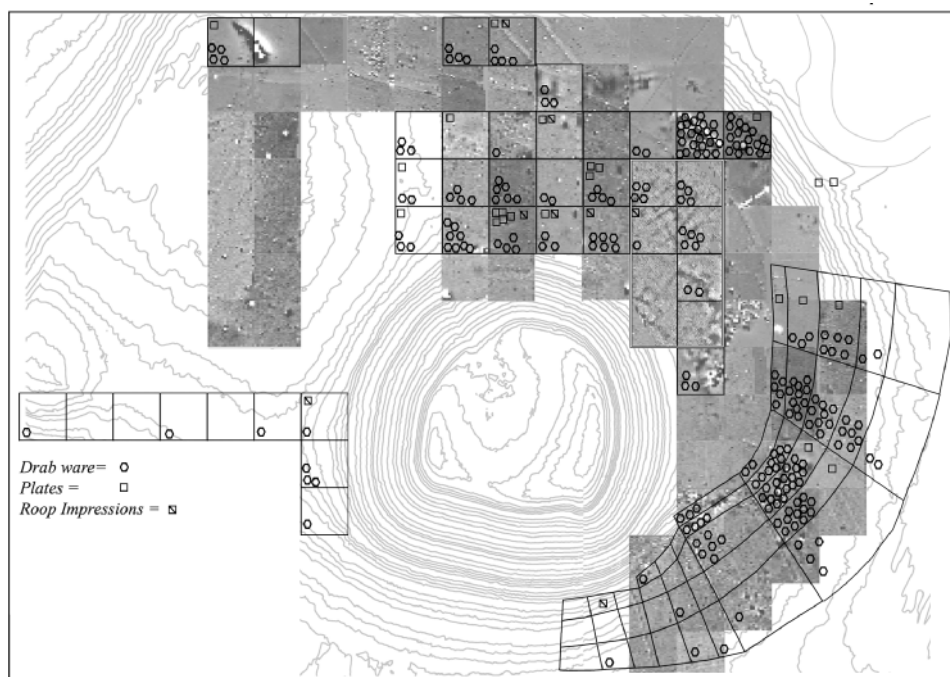
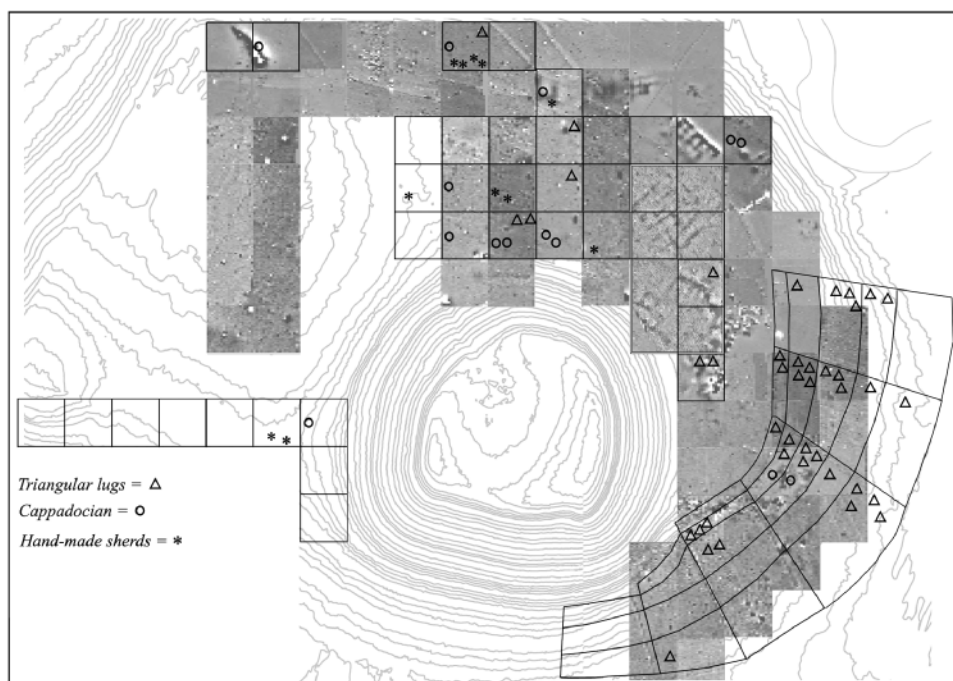


Fig. 16. Spreadsheets 3 (drab ware and plates).

Fig. 17. Spreadsheets 4 (hand-made sherds and triangular lugs)
(by V. Orsi; graphics adapted from G. Carpentiero and B. Chiti plans).

KEY TO THE POTTERY CATALOGUE

Drawings by S. Martelli; A. D'Agostino composed the catalogue and pottery figures.

- n.: number of sherds as referred to the drawing in the figures
- UKn.: inventory number
- Area: square of provenience referred to topographic grid and collection units
(HM: high mound southeastern slope; TS: terrace northern slope)
- W/Cl: ware and functional class
(C: 'Cappadocian'; D: Drab; Gl: Glazed; K: Kitchen; OS: Orange Slip, 'late'; P: Plain; PB: 'Pseudo-Brittle'; RS: Red Slip, all fragments red coated; Pf: Polychrome, 'Phrygian'; PT: Painted, Iron Age; PYS: Panted on Yellowish/White Slip, 'Phrygian' - / - C: Common and table wares; K: Kitchen; S: Storage and long term preservation; F: Fine and luxury wares)
- E: texture evaluation
(FF: very fine; F: fine; MF: medium-fine; M: medium; MC: medium-coarse; C: coarse)
- ST: surface treatment – type of coat and secondary treatment
(1: no coat/treatment; 2: rough, summary treatment, lines of wheel are evident; 3: self-slip; 4: slip/painting;
S: smoothed [o: horizontal lines are clearly visible]; V: sort of glazed consistence; B: burnished; P: polished)
- Fa: fabric – main inclusion (V: vegetal; M: mineral; MV: mineral and vegetal) and quality of inclusions
(M1: very small grits, calcareous particles, few mica; M2: grits, middle amount of calcareous particles and mica; M3: prevailing amount of calcareous particles, grits, mica; M3b: prevailing amount of calcareous particles, grits, mica, sandy; M4: prevailing amount of mica, white grits, fine-grained sand; M5: very small grits, calcareous particles, large calcareous particles; M6: very small grits, calcareous particles, straw well minced, sandy; M8: small and medium sized white and blackish grits, mica, coarse; M9: very small grits, calcareous particles, large black grits; M10: mixed mineral inclusions and calcareous particles; M11: very small grits, calcareous particles; M12: sand, calcareous particles, mica; M14: inclusions not visible; M15: white grits, calcareous particles; M16: white and red grits, sporadic calcareous particles and mica; M17: angular red and black grits; M30: brown and reddish grits, sporadic vegetal particles;
W2: chaff and little amount of calcareous particles; W3: little sized grits and little amount of calcareous particles; W5: chaff and grits usually white)
- Colours: outer and inner surface color (main color visible in surface; color of the self-slip when it is present or matrix color; in the case of slipped or painted sherds the first color before the sign + refers to the color of the painted motifs; color of the section), color of the section (main color visible in section; + nucleus color if different). Abbreviations used are referred to the Munsell Soil Color Charts.
- AS: appearance of surface – 1: mat red-brown surface, coverage uniform; 2: lustrous, glossy red-brown surface, coverage uniform; 3: mat red-brown surface, brush traces, coverage uneven
- T: H: hand made; W: wheel made; HW: hand made and finished on the wheel

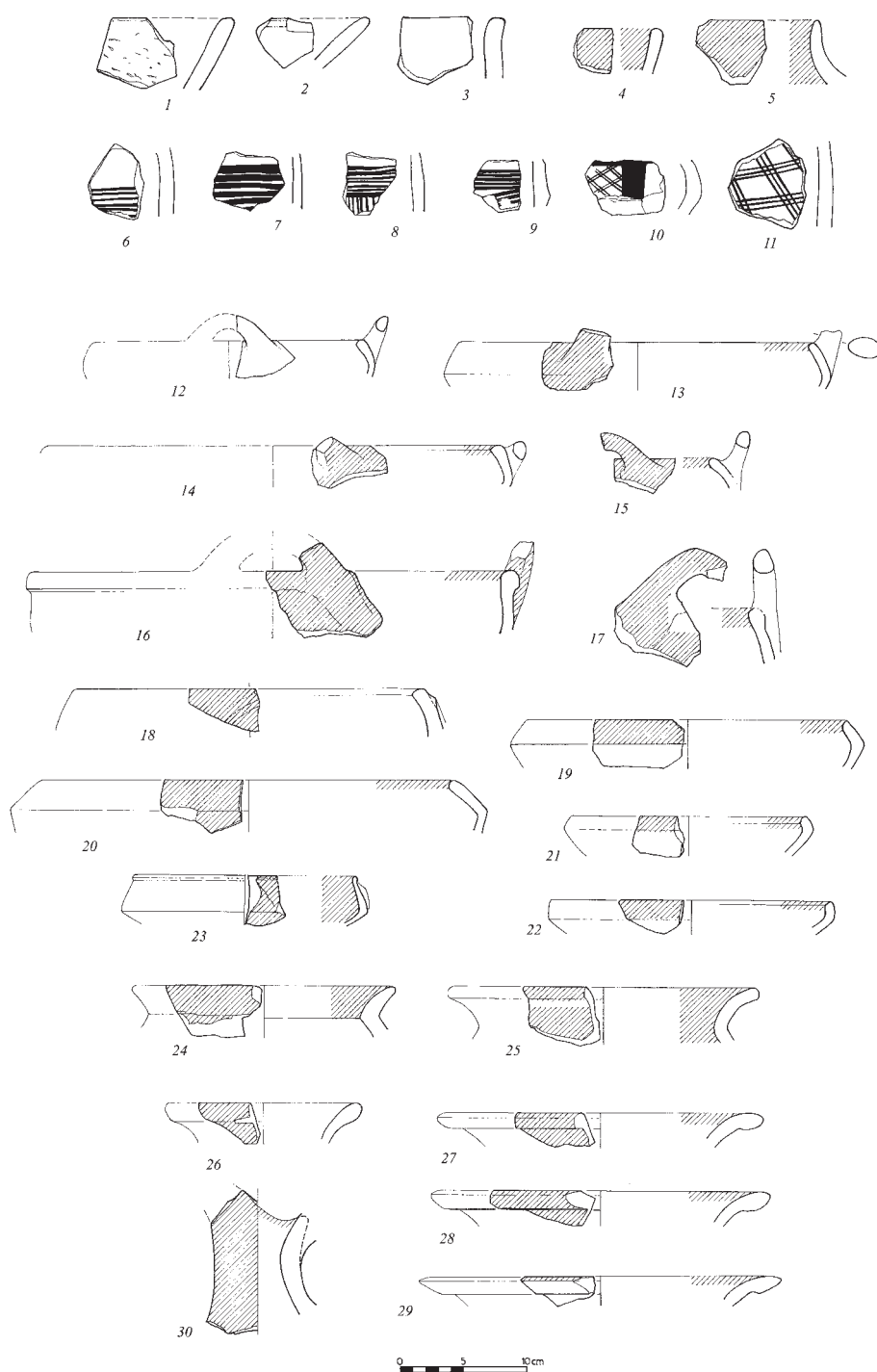


Fig. 18. Sherds dating to the Early Bronze Age-Middle Bronze Age transition (n. 1-11) and to the Middle Bronze Age/Late Bronze Age (n. 12-30).

Fig. 18. Sherds dating to the EBA-MBA transition and to the MBA/LBA.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|----|---------|--------|------|----|-----|------|--|---|--|---|----|
| 1 | 09.1169 | L1,b5A | P/C | M | 2B | VMw2 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | r.y. - 5YR 6/6 | 1 | H |
| 2 | 09.1211 | D14 | P/C | MC | 1 | Mw3 | br. - 7.5YR 5/3 | d.g. - 7.5 YR 4/1 | br. - 7.5 YR 5/3 + d.g. - 7.5 YR 4/1 | 1 | H |
| 3 | 09.1208 | D14 | P/C | M | 3 | Mw4 | w.r. - 10 R 5/4 + l.r.b. - 2.5 YR 6/4 | r.y. - 5 YR 6/6 | l.r. - 2.5 YR 6/8; GLE1 3/N | 1 | H |
| 4 | 09.790 | H15 | RS/C | M | 4Bo | Vw2 | r. - 10 R 5/8; r. - 10 R 5/6 | r. - 10 R 5/8; r. - 10 R 5/6 | v.d.g. - GLEY1 3/N | 1 | H |
| 5 | 09.892 | E16 | RS/C | M | 4B | M30 | r. - 10 R 5/6; l.b. - 7.5 YR 6/4 | r. - 10 R 5/6; r.y. - 5 YR 6/6 | br. - 7.5 YR 5/4 | 1 | H |
| 6 | 08.1695 | L3,b3 | C/C | M | 2B | M11 | d.r.g. - 5 YR 4/2 + r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4; d.g. - 5 YR 4/1 | 1 | H |
| 7 | 09.1212 | D14 | C/C | M | 4B | Mw5 | p.r. - 10 R 6/3 + r. - 10 R 4/8; g.br. - 2.5 Y 5/6 | l.r.b. - 5 YR 6/4 | l.o.b. - 2.5 Y 5/6; r.b. - 2.5 YR 2.5/1 | 1 | H |
| 8 | 08.2203 | F20 | C/C | M | 4P | M3 | b.b. - 5 PB 2.5/1 + r. - 10 R 5/6; l.r. - 10 R 6/6 | l.r. - 10 R 6/6 | l.r. - 10 R 6/6 | 1 | H |
| 9 | 08.1133 | TS | C/C | M | 4S | M3 | b. - 7.5 YR 2.5/1 + p. - 7.5 YR 7/4; r.b. - 2/5 YR 4/3 | r.b. - 2/5 YR 4/3 | r.b. - 2/5 YR 4/3; b. - GLEY1 2.5/N | 1 | H |
| 10 | 08.0382 | F20 | C/C | M | 3B | M6 | l.b. - 7.5 YR 6/3 + l.b. - 7.5 YR 6/4; r.y. - 7.5YR6/6 | r.y. - 7.5 YR 6/6 | r.y. - 7.5 YR 6/6 | 1 | H |
| 11 | 09.0801 | H15 | C/C | M | 2Bo | V2 | w.r. - 2.5 YR 4/2 + r.br. - 5 YR 5/4 | w.r. - 2.5 YR 4/2 + r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4; g. - 5 YR 5/1 | 1 | H |
| 12 | 08.0799 | F20 | P/C | F | 4B | M11 | r.br. - 5 YR 5/3; r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | 1 | W |
| 13 | 08.2109 | L4,b4 | RS/C | M | 4S | M3 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6; g. - GLEY1 6/N | 1 | W |
| 14 | 08.1821 | L3,b4 | RS/C | M | 4P | M11 | r. - 10 R 4/8; w.r. - 10 R 5/4 | r. - 10 R 4/8; w.r. - 10 R 5/4 | w.r. - 10 R 5/4 | 1 | W |
| 15 | 08.1566 | L3,b2 | RS/C | F | 4B | M11 | w.r. - 10 R 5/4; y.r. - 5 YR 5/6; | w.r. - 10 R 5/4; y.r. - 5 YR 5/6; | y.r. - 5 YR 5/6; | 1 | W |
| 16 | 09.0002 | L1,b2 | RS/C | M | 4B | M3B | w.r. - 10 R 4/4; br. - 7.5 YR 5/3 | g. - 7.5 YR 5/1; br. - 7.5 YR 5/3 | d.r.g. - 10 YR 4/1 | 1 | W |
| 17 | 08.1626 | L3,b2 | RS/C | M | 4S | M11 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6; d.g. - GLEY1 4/N | 1 | W |
| 18 | 08.0846 | J19 | RS/C | M | 4B | M11 | w.r. - 10R 5/4; r.br. - 5 YR 5/3; | r.br. - 5 YR 5/3 | r.br. - 5 YR 5/3; d.g. - GLEY1 4/N | 1 | W |
| 19 | 08.574 | H19 | RS/C | M | 4B | M3 | r. - 2.5 YR 5/6; l.r.b. - 2.5 YR 6/4 | r. - 2.5 YR 5/6; l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4; g. - GLEY1 5/N | 1 | W |
| 20 | 08.1392 | L2,b4 | RS/C | F | 4 | M11 | w.r. - 10 R 5/4; l.r. - 2.5 YR 6/6 | w.r. - 10 R 5/4; l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6; d.g. - GLEY1 4/N | 1 | W |
| 21 | 08.1558 | L3,b2 | RS/C | M | 4 | M3 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6; d.g. - GLEY1 4/N | 1 | W |
| 22 | 08.1097 | L2,b2 | RS/C | M | 4B | M11 | r. - 10 R 5/6; r.br. - 5 YR 5/4 | r. - 10 R 5/6; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 23 | 09.0001 | L1,b2 | RS/F | F | 4B | M12 | w.r. - 10 R 4/4; br. - 7.5 YR 5/3 | w.r. - 10R4/4; br. - 7.5 YR 5/3 B | g. - 7.5 YR 5/1 | 1 | W |
| 24 | 08.1128 | L2,b2 | RS/C | M | 4S | M5 | r. - 10 R 5/6; w.r. - 10 R 5/4 | r. - 10 R 5/6; w.r. - 10 R 5/4 | w.r. - 10 R 5/4 | 1 | W |
| 25 | 08.1231 | L2,b3 | RS/C | M | 4S | M11 | l.r. - 10 R 6/6; r.br. - 5 YR 5/4 | l.r. - 10 R 6/6; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 26 | 08.1467 | L2,b5 | RS/C | F | 4B | M11 | w.r. - 10 R 5/4; r. - 2.5 YR 5/8 | w.r. - 10 R 5/4; r. - 2.5 YR 5/8 | r. - 2.5 YR 5/8 | 1 | W |
| 27 | 08.0728 | I19 | RS/C | M | 4B | M11 | p.r. - 10 R 6/4; r. - 2.5 YR 5/6 | w.r. - 10 R 5/4; r. - 2.5 YR 5/6; | r. - 2.5 YR 5/6 | 1 | W |
| 28 | 08.2030 | L4,b3 | RS/C | M | 4B | M3 | w.r. - 10 R 4/3; d.g. - 7.5 YR 4/1 | w.r. - 10 R 4/4; d.g. - 7.5 YR 4/1 | d.g. - 7.5 YR 4/1 | 1 | W |
| 29 | 08.1760 | L3,b3 | RS/C | M | 4S | M5 | w.r. - 10 R 4/3; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 30 | 09.1277 | L2,b2 | RS/F | MF | 4P | M3 | r. - 2.5 YR 4/6; l.r. - 2.5 YR 6/6 | r. - 2.5 YR 4/6 + v.p.b. - 10 YR 8/4 | l.r. - 2.5 YR 6/6 | 2 | WH |

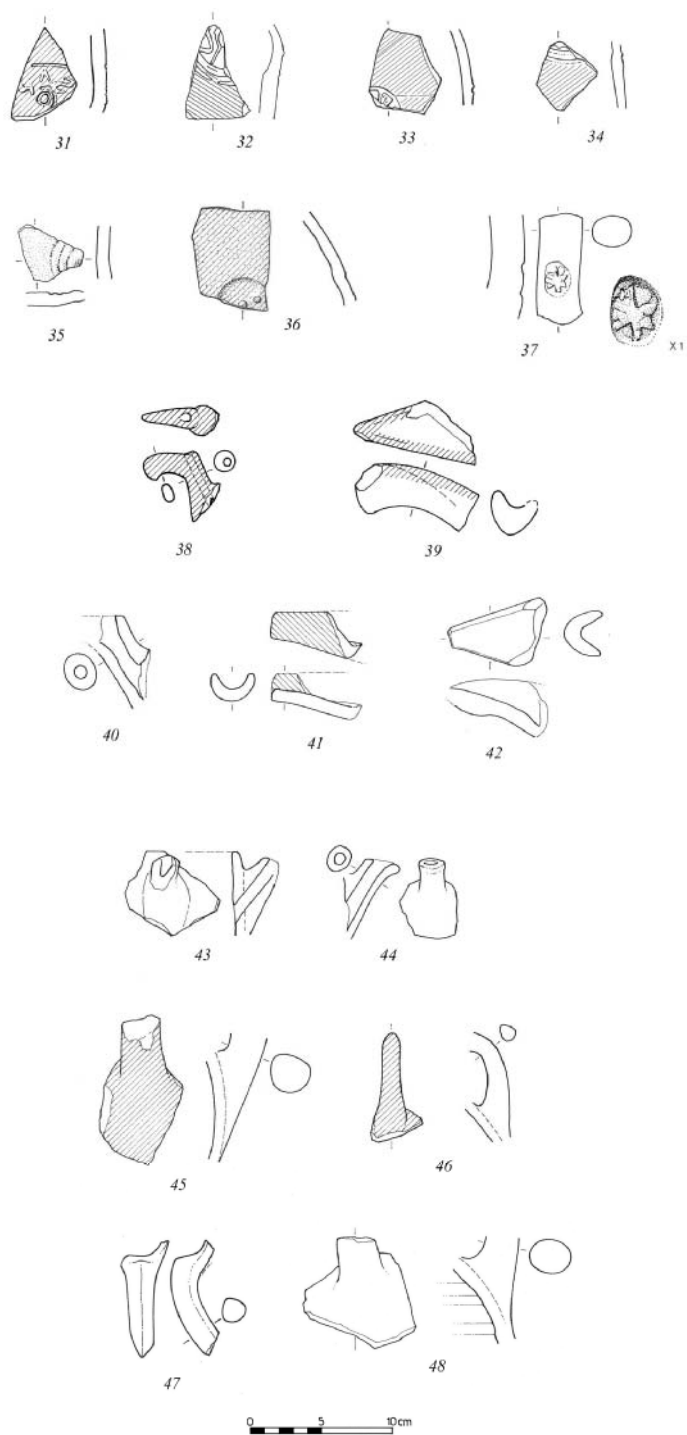


Fig. 19. Sherds dating to the Middle Bronze Age/Late Bronze Age (31-48).

Fig. 19. Sherds dating to the Middle Bronze Age/Late Bronze Age.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|----|---------|-------|----------|----|-----|-----|---|--------------------------------------|--|---|---|
| 31 | 09.0008 | F19 | RS/ C | MF | 4 | M1 | r. - 10 R 5/6; l.b. - 7.5 YR 6/4 | l.b. - 7.5 YR 6/4 | br. - 7.5 YR 5/2 | 1 | W |
| 32 | 08.0432 | G19 | RS/ C | F | 4S | M1 | w.r. - 10 R 4/4; v.d.g. - GLEY1 3/N | v.d.g. - GLEY1 3/N | v.d.g. - GLEY1 3/N | 1 | W |
| 33 | 08.0858 | L1,b1 | RS/ C | M | 4 | M3 | r. - 10 R 5/6; r.y. - 5YR6/6 | r.y. - 5 YR 6/6 | r.y. - 5Y R 6/6; d.g. - GLEY1 4/N | 1 | W |
| 34 | 08.1907 | L4,b1 | RS/ C | F | 4 | M11 | r. - 10 R 5/6; r.br. - 5 YR 5/4 | r. - 10 R 5/6; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 35 | 08.1243 | L2,b3 | RS/ C | F | 4S | M11 | w.r. - 10 R 5/4; y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | 1 | W |
| 36 | 09.1256 | HM | RS/ C | MF | 4BV | M | r. - 10 R 4/6; p.r. - pi.r. - 10 R 6/4 | p.g. - 7.5 YR 6/2 | l.b. - 7.5 YR 6/4 | 2 | W |
| 37 | 08.1793 | L3,b4 | P/ C | F | 1 | M11 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6; l.g. - GLEY 7/N | 1 | H |
| 38 | 09.1279 | L3,b3 | RS/F | F | 4P | M10 | y.r. - 5 YR 4/6; p. - 5 YR 7/4 | p. - 5 YR 7/4 | p. - 5 YR 7/4 | 2 | H |
| 39 | 09.0003 | L1,b2 | RS/ C | M | 4B | M3 | r. - 2.5 YR 5/6 + l.r.b. - 5 YR 6/4 | r. - 2.5 YR 5/6 + l.r.b. 5 YR 6/4 | br. - 7.5 YR 5/4 | 1 | H |
| 40 | 08.0424 | TS | RS/ C | F | 4P | M11 | r. - 10 R 4/6; r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | 1 | H |
| 41 | 08.0291 | F20 | RS/ C | F | 4B | M11 | r. - 10 R 4/6; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | H |
| 42 | 08.1943 | L4,b2 | C | M | 3B | M3 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | 1 | H |
| 43 | 08.1106 | L2,b2 | P/ C | M | 3 | M11 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6; r.br. - 5 YR 5/4 | 1 | H |
| 44 | 08.1245 | L2,b3 | P/ C | M | 2 | M11 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4; g. - GLEY1 5/N | 1 | H |
| 45 | 08.0547 | TS | RS/ C | M | 4S | M11 | w.r. - 10 R 5/4; l.r. - 2.5 YR 6/6 | b. - GLEY1 2.5/N | l.r. - 2.5 YR 6/6; b. - GLEY1 2.5/N | 1 | H |
| 46 | 08.0816 | F20 | RS/ C | F | 4B | M3 | r. - 10 R 4/6; r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | 1 | H |
| 47 | 09.1280 | L3,b3 | RS/F | FF | 4P | M14 | y.r. - 5 YR 5/6; l.r.b. - 5 YR 6/3 | l.r.b. - 5 YR 6/3 | l.r.b. - 5 YR 6/3 | 2 | H |
| 48 | 08.0853 | TS | P/ C | MF | 2S | M11 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6; g. - GLEY1 5/N | 1 | H |

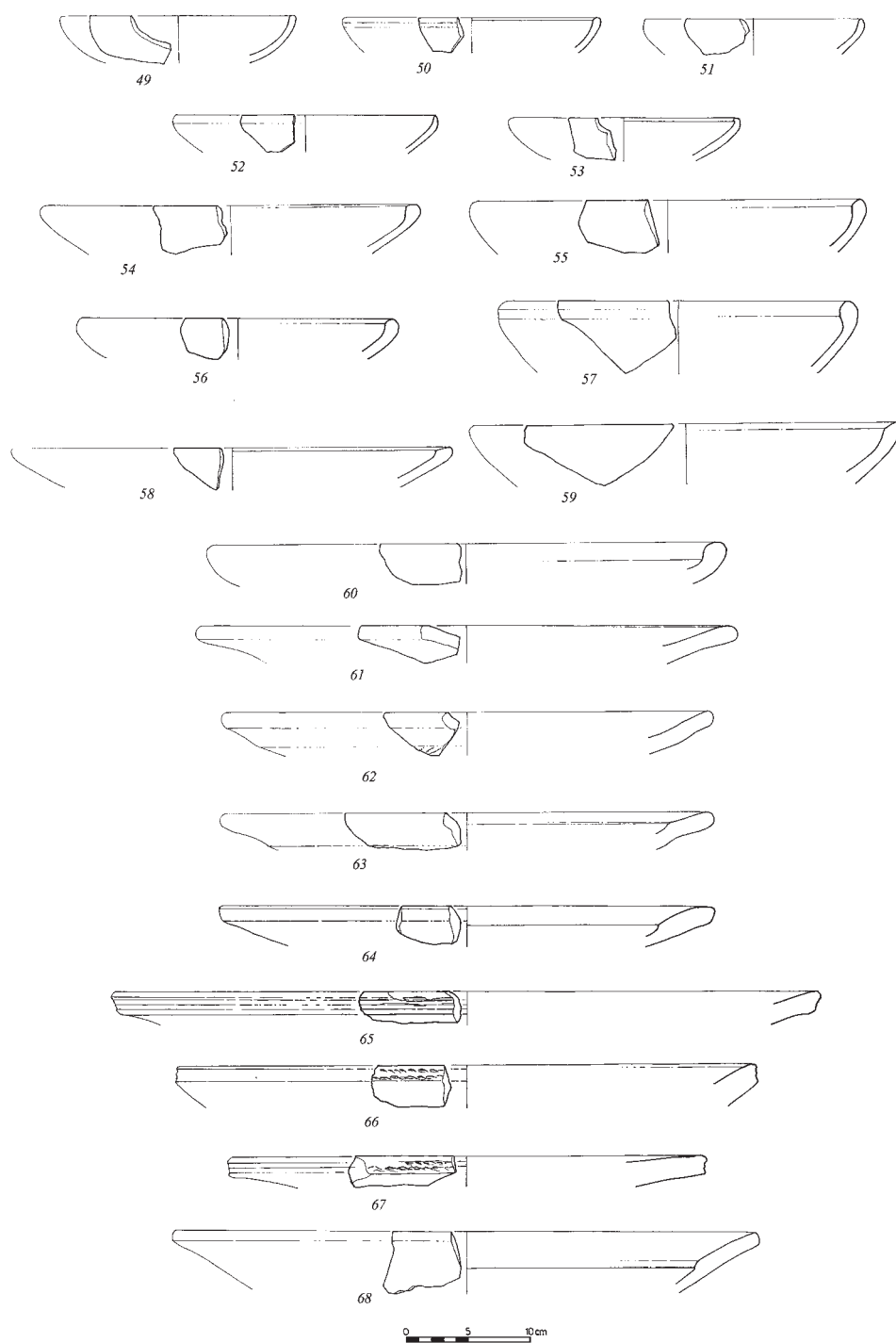


Fig. 20. Sherds dating to the Late Bronze Age.

Fig. 20. Sherds dating to the Late Bronze Age.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|----|---------|-------|---------|----|-----|-----|---|---|--------------------------------------|---|----|
| 49 | 08.1019 | L2,b2 | D/ C | F | 2So | M11 | r.br. - 5 YR 5/3 | r.br. - 5 YR 5/3 | r.br. - 5 YR 5/3 | 1 | W |
| 50 | 09.0423 | G16 | P/ C | M | 2So | M1 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | W |
| 51 | 08.0415 | F20 | D/ C | M | 2So | I1 | r. - 2.5 YR 5/8 | r. - 2.5 YR 5/8 | r. - 2.5 YR 5/8 | 1 | W |
| 52 | 08.0802 | F20 | D/ C | F | 2So | M11 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 53 | 08.0792 | F20 | D/ C | F | 3So | M1 | r. - 10 R 5/8; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 54 | 09.0298 | F16 | P/ C | M | 2So | M2 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | W |
| 55 | 09.0089 | H18 | P/ C | M | 2So | M3 | l.r.b. - 2.5 YR 6/4; y.r. - 5 YR 5/6 | l.r.b. - 2.5 YR 6/4; y.r. - 5 YR 5/6 | g. - 5 YR 5/1 | 1 | W |
| 56 | 09.0730 | H15 | P/ C | M | 2So | M1 | l.r.b. - 5 YR 6/4; y.r. - 5 YR 5/4 | l.r.b. - 5 YR 6/4; y.r. - 5 YR 5/4 | g. - 5 YR 5/1 | 1 | W |
| 57 | 08.0764 | F19 | D/ C | M | 2So | M11 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6; g.g. - 10 Y 5/1 | 1 | W |
| 58 | 08.0362 | F20 | D/ C | M | 2So | M11 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6; g. - GLEY1 5/N | 1 | W |
| 59 | 09.0348 | G17 | P/ C | M | 2So | M11 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | W |
| 60 | 08.1132 | TS | D/ C | M | 2So | M11 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | 1 | HW |
| 61 | 08.1904 | L4,b1 | D/ C | M | 3So | M9 | r. - 2.5 YR 5/6 | p. - 5 YR 7/4; r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | 1 | W |
| 62 | 08.2205 | TS | P/ C | M | 3So | M11 | p.r. - 10 R 6/4; r.y. - 5 YR 6/6 | p.r. - 10 R 6/4; r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6; d.g. - GLEY1 4/N | 1 | HW |
| 63 | 08.2201 | TS | D/ C | M | 2So | M5 | br. - 7.5 YR 5/3 | r.br. - 5 YR 5/3 | r.br. - 5 YR 5/3 | 1 | HW |
| 64 | 09.0755 | H15 | P/ C | C | 2B | M17 | br. - 7.5 YR 4/2; br. - 7.5 YR 4/2 B | r.br. - 5 YR 5/4; y.r. - 5 YR 4/6 YR | d.g. - 10 YR 4/1 | 1 | HW |
| 65 | 09.0106 | H18 | P/ C | MC | 2So | M11 | v.p.b. - 10 YR 7/3 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | HW |
| 66 | 09.0049 | H16 | K/K | MF | 1 | M8 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | H |
| 67 | 09.0279 | H17 | K/K | MC | 2So | M15 | r.br. - 5 YR 5/3; y.r. - 5 YR 5/6 | r.br. - 5 YR 5/3; y.r. - 5 YR 5/6 | g. - 7.5 YR 5/1 | 1 | HW |
| 68 | 08.2000 | L4,b2 | D/ C | M | 3B | M5 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | 1 | HW |

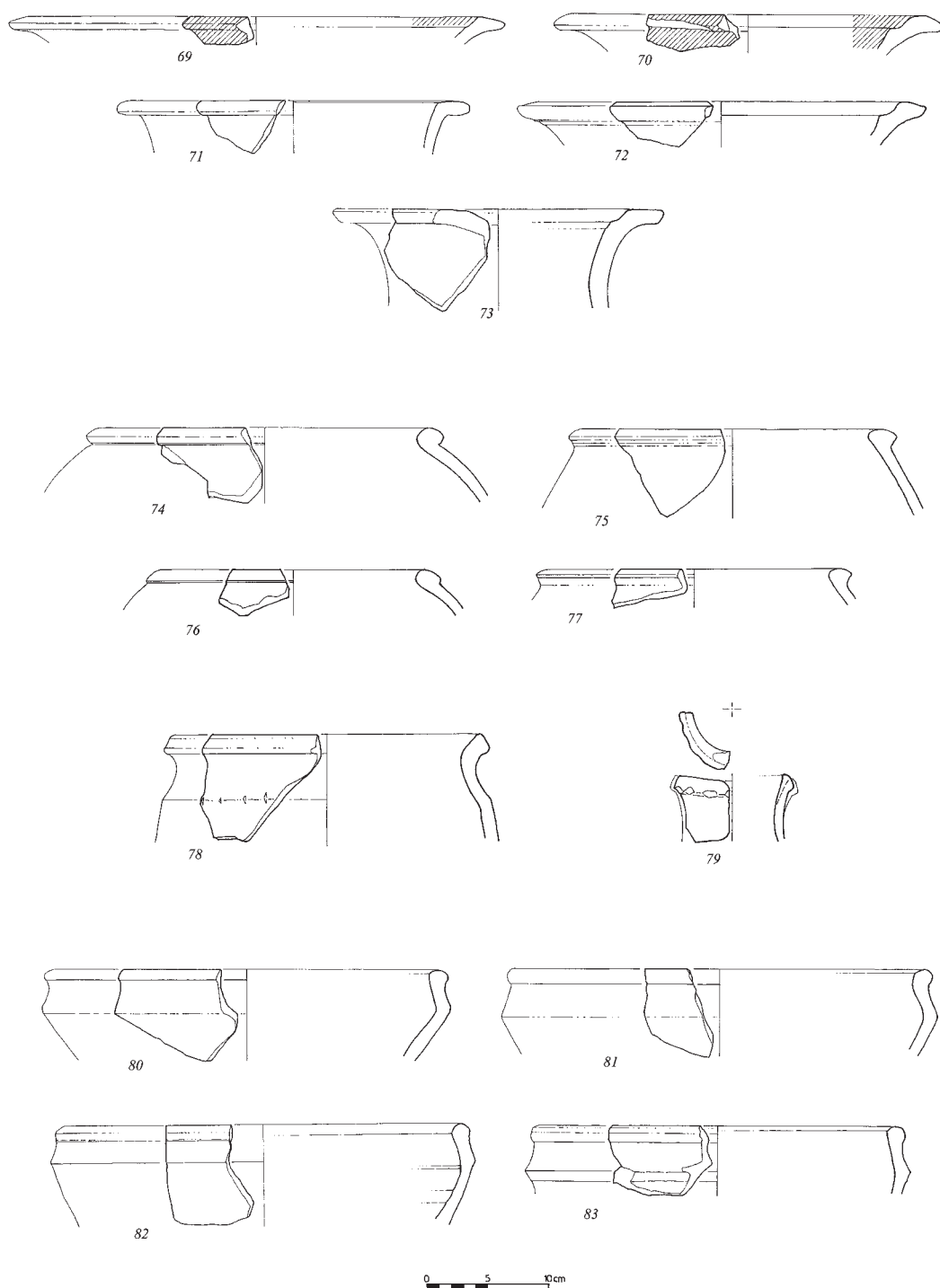


Fig. 21. Sherds dating to the Late Bronze Age/Iron Age.

Fig. 21. Sherds dating to the Late Bronze Age/Iron Age.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|----|---------|---------|----------|----|-----|-----|---|---------------------------------------|---------------------------------------|---|---|
| 69 | 08.1284 | L2,b3 | RS/ C | MF | 4B | M11 | r. - 10 YR 5/6; br. - 7.5 YR 5/2 | r. - 10 YR 5/6; br. - 7.5 YR 5/2 | br. - 7.5 YR 5/2; y.r. - 5 YR 5/6 | 1 | W |
| 70 | 08.1638 | L3,b3 | RS/ C | M | 4B | M11 | w.r. - 10 R 5/4; r.br. - 5 YR 4/4 | r.br. - 5 YR 4/4 | r.br. - 5 YR 4/4; d.g. - GLEY1 4/N | 1 | W |
| 71 | 08.0920 | L1,b3 | P/ C | M | 4S | M11 | p. - 7.5 YR 7/3; l.r.b. - 5 YR 6/4 | l.r.b. - 5 YR 6/4 | l.r.b. - 5 YR 6/4 | 1 | W |
| 72 | 08.1311 | L2,b4 | P/ C | M | 3S | M11 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | p.g. - 7.5 YR 6/2; y.r. - 5 YR 5/6 | 1 | W |
| 73 | 08.1900 | L3,b5 | P/ C | F | 4S | M11 | r. - 2.5 YR 5/8 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6; d.g. - GLEY1 4/N | 1 | W |
| 74 | 08.772 | F19 | K/ K | M | 3S | M3b | r.br. - 2.5 YR 5/3 | r.br. - 2.5 YR 5/3 | r.br. - 2.5 YR 5/3; r. - 10 R 5/8 | 1 | W |
| 75 | 08.1056 | L2,b2 | K/ K | M | 3S | M3b | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 76 | 09.0901 | E16 | K/K | M | 2S | M1 | p. - 5 YR 7/4 | p. - 5 YR 7/4 | y.r. - 5 YR 5/6 | 1 | W |
| 77 | 09.0600 | H13 | K/K | MF | 3S | M2 | p.b. - 10 YR 6/3; br. - 10 YR 5/3 | br. - 10 YR 5/3 | d.g. - 10 YR 4/1 | 1 | W |
| 78 | 09.1172 | L-1,b5A | P/ C | M | 2S | M17 | l.o.b. - 2.5 YR 5/6; o.y. - 2.5 YR 6/8 | r. - 2.5 YR 5/6; l.r. - 2.5 YR 6/8 | g. - 5 YR 5/1 | 1 | W |
| 79 | 09.0515 | G14 | P/ C | M | 2So | M3 | r. - 2.5 YR 5/6; p. - 7.5 YR 7/4 | r. - 2.5 YR 5/6; p. - 7.5 YR 7/4 | g. - 7.5 YR 5/1 | 1 | W |
| 80 | 08.810 | F20 | P/ C | M | 2S | M7 | d.r.g. - 5 YR 4/2 | d.r.g. - 5 YR 4/2 | d.r.g. - 5 YR 4/2 | 1 | W |
| 81 | 08.796 | F20 | P/ C | F | 3S | M11 | l.g. - 10 YR 7/2; r.br. - 5 YR 5/4 | l.g. - 10 YR 7/2; r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |
| 82 | 08.0311 | F20 | P/ C | M | 3 | M11 | l.r.b. - 5 YR 6/4 | y.r. - 5 YR 5/8 | g. - 5 YR 5/1; y.r. - 5 YR 5/8 | 1 | W |
| 83 | 08.1351 | L2,b4 | P/ C | MF | 3 | M11 | g. - GLEY1 5/N | r.br. - 5 YR 5/4 | r.br. - 5 YR 5/4 | 1 | W |

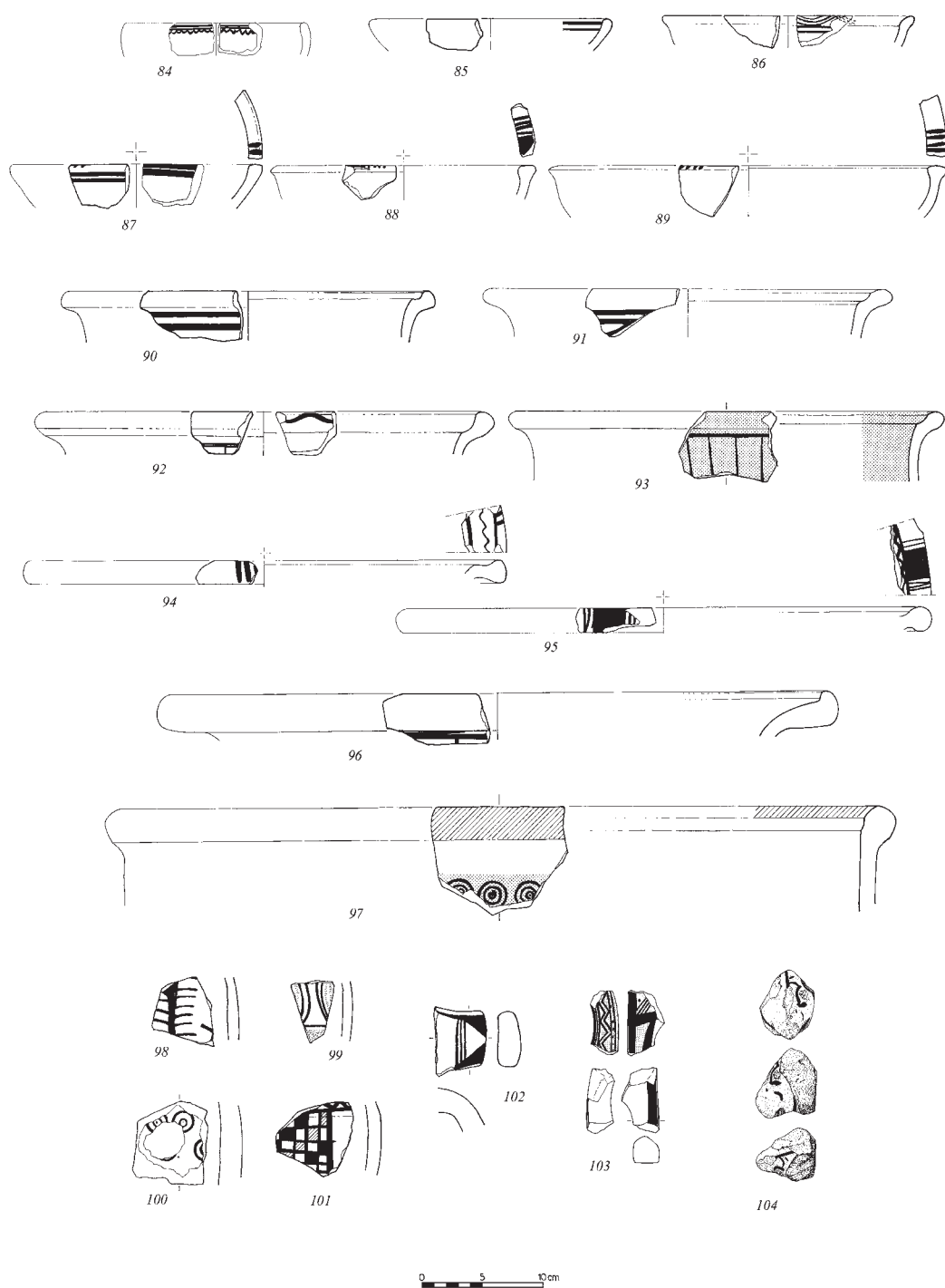


Fig. 22. Sherds dating to the Middle Iron Age.

Fig. 22. Sherds dating to the Middle Iron Age.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|-----|---------|-------|-----------|----|-----|---------|--|--|--|---|---|
| 84 | 09.0789 | H15 | PT/F | MF | 4Bo | M3 | br. - 7.5 YR 4/2 + v.p.b. - 10 YR 8/3 | br. - 7.5 YR 4/2 + v.p.b. - 10 YR 8/3 | r.y. - 7.5 YR 6/6 | 1 | W |
| 85 | 09.0368 | G17 | PT/C | MF | 2B | M3 | l.b. - 7.5 YR 6/3 | d.r.g. - 2.5 YR 4/1 + l.b. - 7.5 YR 6/4 | 7.5 YR 5/4 | 1 | W |
| 86 | 09.0528 | G14 | PT/C | M | 4Bo | M15 | p.y. - 5 Y 8/2 | d.r.g. - 5 YR 4/2 + v.p.b. - 10 YR 7/3 | y.r. - 5 YR 5/6 | 1 | W |
| 87 | 09.0967 | L9 | PT/C | MF | 3B | M3B | r.br. - 5 YR 4/3 + br. 7.5 YR 5/3; l.r. - 10R6/6 | r.br. - 5 YR 4/3 + g. - 10 YR 6/1; d.r.g. 10 R 4/1 | d.r.g. - 10 R 4/1 | 1 | W |
| 88 | 08.0523 | G19 | PT/ C | M | 4B | M2 | du.r. - 10 R 3/2 + r.br. - 2.5 YR 5/4 | r.br. - 2.5 YR 5/4 | r.br. - 2.5 YR 5/4 | 1 | W |
| 89 | 09.0107 | H18 | PT/F | F | 4Bo | M10 | w.r. - 2.5 YR 4/2 + l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | 1 | W |
| 90 | 09.0773 | H15 | PT/C | MF | 4S | M4 | d.r.b. - 10 R 3/1 + l.b. - 7.5 YR 6/4 | l.b. - 7.5 YR 6/4 | r. - 2.5 YR 5/8 | 1 | W |
| 91 | 08.2021 | HM | PT/C | M | 4S | M2 | l.r.b. - 5 YR 6/4 + l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | l.r.b. - 2.5 YR 6/4 | 1 | W |
| 92 | 09.0324 | F16 | PT/C | MF | 3Bo | M3 B | r.br. - 5 YR 5/4 + l.b.g. - 10 YR 6/2; g. - 10 YR 6/1 | r.br. - 5 YR 5/4 + l.b.g. - 10 YR 6/2; g. - 10 YR 6/1 | br. - 7.5 YR 5/3 | 1 | W |
| 93 | 09.0309 | F16 | PYS/ C | M | 4Bo | M3 | d.r.g. - 5 YR 4/2 + r.y. - 7.5 YR 7/6 | r.y. - 7.5 YR 7/6 | r.y. - 5 YR 6/6 | 1 | W |
| 94 | 08.0548 | HM | PT/ C | M | 4P | | d.r.g. - 5 YR 4/2 + l.r. - 2.5 YR 6/8 | d.r.g. - 5 YR 4/2 + l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | 1 | W |
| 95 | 08.0680 | I19 | PT/ C | F | 4P | M11 | w.r. - 10 R 4/2 + l.b. - 7.5 YR 6/4; l.r. - 2.5 YR 6/8 | w.r. - 10 R 4/2 + l.b. - 7.5 YR 6/4; l.r. - 2.5 YR 6/8 | l.r. - 2.5 YR 6/8 | 1 | W |
| 96 | 09.1105 | D9 | PT/C | M | 4S | M16 | w.r. - 2.5 YR 4/2 + p. - 7.5 YR 7/4; r.y. - 5 YR 6/6 | w.r. - 2.5 YR 4/2 + p. - 7.5 YR 7/4; r.y. - 5 YR 6/6 | l.b. - 7.5 YR 6/4 | 1 | W |
| 97 | 09.0181 | G17 | PT/C | M | 4Bo | M2 | d.r.b. - 2.5 YR 3/3 + v.p.b. - 10 YR 8/3 + l.b. - 7.5 YR 6/4; y.r. - 5 YR 5/6 | l.b. - 7.5 YR 6/4; y.r. - 5 YR 5/6 | g. - 5 YR 5/1 | 1 | W |
| 98 | 08.1908 | L4,b1 | PT/ C | F | 4P | M11 | d.r.b. - 5 YR 3/4 + l.b. - 7.5 YR 6/4; r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | r. - 2.5 YR 5/6 | 1 | W |
| 99 | 08.0549 | TS | PT/ C | M | 4P | M3 | r.br. - 5 YR 4/4; r.br. - 5 YR 3/2 + v.p.b. - 10 YR 8/3; l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | 1 | W |
| 100 | 08.2022 | TS | PT/ C | M | 4P | M8 | b. - 10 YR 2/1 + v.p.b. - 10 YR 8/2; r.y. - 5 YR 7/8 | l.r.b. - 5 YR 6/3 | r.y. - 5 YR; 6/6; l.r.b. - 5 YR 6/3 | 1 | W |
| 101 | 09.0081 | H16 | Pf/ C | C | 4S | M15 | l.r.b. - 2.5 YR 6/4; d.r.g. - 2.5 YR 3/1 + p. - 7.5 YR 8/3 | y.r. - 5 YR 5/6 | y.r. - 5 YR 5/6 | 1 | W |
| 102 | 08.1903 | L4,b1 | PT/ C | M | 4P | M8 | v.d.g. - 10 YR 3/1 + v.p.b. - 10 YR 8/3; r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | r.y. - 5 YR 6/6 | 1 | H |
| 103 | 09.0598 | H13 | PYS/ C | M | 4B | M3B | d.g.b. - 2.5 YR 4/2 + p.w. - 10 YR 8/2; l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | 1 | H |
| 104 | 09.0899 | E16 | PYS/F | MF | 4B | M3 | br. - 10 YR 4/3; r. - 2.5 YR 5/8 + v.p.b. - 10 YR 8/4; l.r. - 2.5 YR 7/8 | p. - 7.5 YR 7/3; l.r. - 2.5 YR 7/8 | l.r. - 2.5 YR 7/8 | 1 | H |

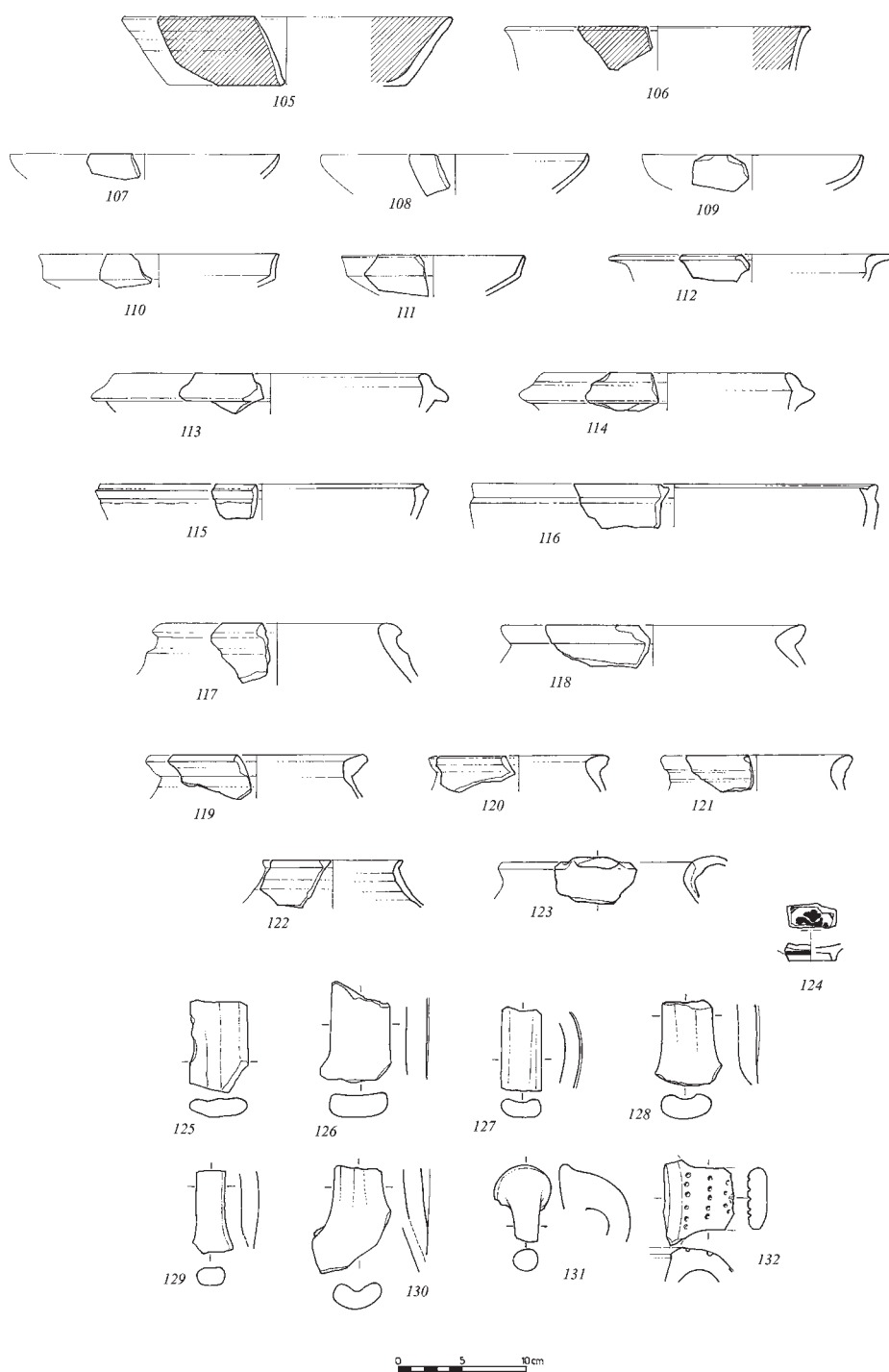


Fig. 23. Sherds dating to the 'later' period.

Fig. 23. Sherds dating to the 'later' period.

| n. | UKn. | area | W/Cl | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|-----|---------|--------|---------|----|------|---------|---|---|---|---|---|
| 105 | 09.0944 | L9 | OS/F | FF | 4Bo | M14 | l.r. - 2.5 YR 6/8 | | r.y. - 5 YR 6/6 | 1 | W |
| 106 | 09.0900 | E16 | RS/F | FF | 4S+B | M14 | r.br. - 2.5 YR 4/3; | d.r. - 10R3/6; r.v. - 5 YR 7/6 | r.y. - 5 YR 6/6 | 3 | W |
| 107 | 09.1233 | D14 | YS/F | F | 4P | M14 | p.y. - 2.5 Y 8/4 | p.y. - 2.5 Y 8/4 | r.y. - 5 YR 6/6 | 2 | W |
| 108 | 09.1213 | D14 | P/ F | F | 2S | M1 | p. - 7.5 YR 7/3 | p. - 7.5 YR 7/3 | br. - 7.5 YR 5/4 | 1 | W |
| 109 | 09.0069 | H16 | P/ F | F | 2S | M14 | l.b. - 7.5 YR 6/3 | l.b. - 7.5 YR 6/3 | l.b. - 7.5 YR 6/4 | 1 | W |
| 110 | 08.2206 | F20 | RS/F | F | 4B | M7 | r. - 5 R 5/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6; r.g. - 2.5 YR 5/1 | 1 | W |
| 111 | 09.1140 | L-1,2A | RS/F | F | 4Bo | M1 V | l.r. - 10 R 6/6; r. - 2.5 YR 5/8 | l.r. - 10 R 6/6; r. - 2.5 YR 5/8 | g. - GLEY1 5/N | 1 | W |
| 112 | 09.0615 | H13 | P/ C | F | 2S | M1 | l.b. - 7.5 YR 6/4 | l.b. - 7.5 YR 6/4 | r.y. - 5 YR 6/6 | 1 | W |
| 113 | 09.1056 | L11 | P/ C | MC | 3So | M1 | v.p.b. - 10 YR 7/3; | l.r. - 2.5 YR 6/6; g. - 5 YR 5/1 | g. - 5 YR 5/1 | 1 | W |
| 114 | 09.0019 | H16 | P/ C | M | 2So | M2 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | 1 | W |
| 115 | 09.0802 | G13 | P/ C | M | 2S | M2 | br. - 7.5 YR 5/2; br. - 7.5 YR 5/3 | br. - 7.5 YR 5/2; br. - 7.5 YR 5/3 | d.g. - 7.5 YR 4/1 | 1 | W |
| 116 | 09.0988 | L8 | P/ C | MF | 2Bo | M1 | r. - 2.5 YR 5/6; l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 7/6; l.r. - 2.5 YR 6/6 | r.g. - 10 R 6/1 | 1 | W |
| 117 | 08.0618 | K19 | K | MF | | M3b | d.r.g. - 2.5 YR 3/1 | d.r.g. - 2.5 YR 3/1 | d.r.g. - 2.5 YR 3/1 | 1 | W |
| 118 | 09.0839 | F14 | P/ C | M | 3S | M3 B | r.y. - 7.5 YR 7/4 | r.y. - 7.5 YR 7/4 | r. - 2.5 YR 5/6 | 1 | W |
| 119 | 09.0226 | G15 | PB/C | M | 3So | M3 | r.b. - 2.5 YR 5/3; l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/8 | 1 | W |
| 120 | 09.0241 | G15 | P/ C | M | 3So | M3 | l.r. - 10 R 6/6 | l.r. - 10 R 7/6 | l.r. - 2.5 YR 6/8 | 1 | W |
| 121 | 09.0878 | F15 | P/ C | M | 1S | M4 | p. - 5 YR 7/3 | r.y. - 5 YR 7/6 | r.g. - 5 YR 5/2 | 1 | W |
| 122 | 09.0182 | G17 | P/ C | F | 3Bo | M10 | r.y. - 7.5 YR 6/6 | r.y. - 5 YR 7/6 | r.br. - 5 YR 5/4 | 1 | W |
| 123 | 09.0855 | F14 | PB/K | MF | 1 | M15 | r.br. - 2.5 YR 5/4 | r.br. - 2.5 YR 5/4 | d.r.g. - 2.5 YR 4/1 | 1 | W |
| 124 | 09.0960 | L9 | GL/F | F | 5 | M | white and blue | white and blue | white | 1 | W |
| 125 | 09.0947 | L9 | P/ C | MF | 2S | M1 | r.y. - 7.5 YR 7/6 | r.y. - 7.5 YR 7/6 | l.r. - 10 R 6/6 | 1 | H |
| 126 | 09.0163 | F17 | P/ C | M | 2S | M3 | r.y. - 7.5 YR 7/6; br. - 7.5 YR 5/4 | r.y. - 7.5 YR 7/6; b. - 7.5 YR 5/4 | g. - GLEY1 6/N | 1 | H |
| 127 | 09.0172 | F17 | P/ C | MF | 2So | M1 | l.b. - 7.5 YR 6/3 | br. - 7.5 YR 5/2 | l.g. - 7.5 YR 7/1 | 1 | H |
| 128 | 09.0948 | L9 | P/ C | M | 2S | M11 | l.r. - 2.5 YR 6/6 | l.r. - 2.5 YR 6/6 | r. - 2.5 YR 5/8 | 1 | H |
| 129 | 09.0230 | G15 | P/ C | M | 2S | M3 | l.r.b. - 5 YR 6/4 | l.r.b. - 5 YR 6/4 | l.r. - 2.5 YR 6/8 | 1 | H |
| 130 | 09.0328 | F16 | P/ C | M | 2So | M3 B | br. - 7.5 YR 5/2 | l.r. - 7.5 YR 5/2 | g. - 7.5 YR 5/1 | 1 | H |
| 131 | 09.0208 | G15 | P/ C | M | 4So | M1 | p. - 10 YR 8/3 + l.b. - 7.5 YR 6/3 | l.b. - 7.5 YR 6/3 | y.b. - 10 YR 5/4 | 1 | H |
| 132 | 09.1185 | HM | P/ C | M | 2S | M1 | w.r. - 10 R 4/4 | w.r. - 10 R 4/4 | w.r. - 10 R 4/4 | 1 | H |

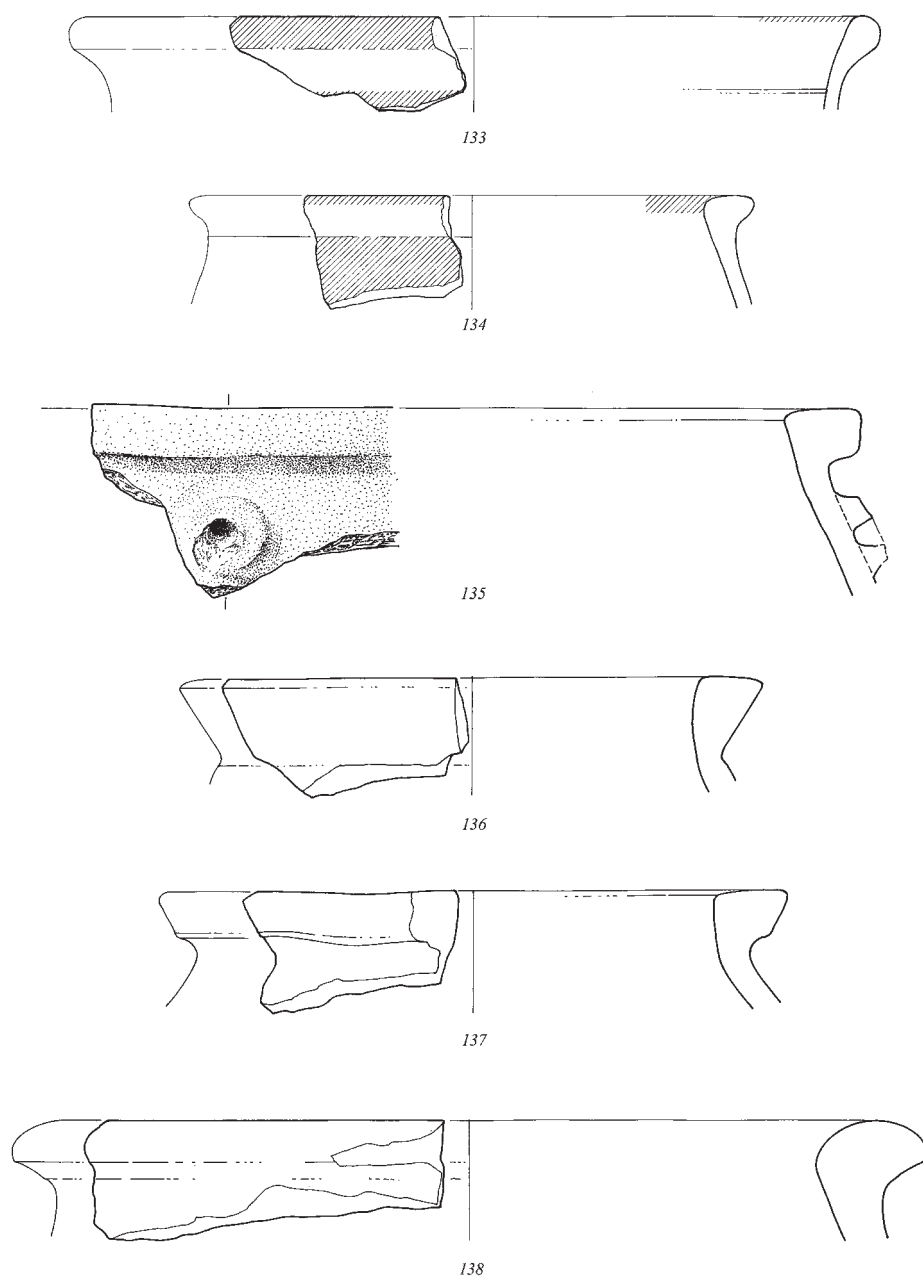


Fig. 24. Storage jar sherds.

Fig. 24. Storage jar sherds.

| n. | UKn. | area | W/CI | E | ST | Fa | Color (out) | Color (in) | Color (sect.) | A | T |
|-----|---------|-------|----------|----|-----|----|--------------------------------------|-------------------------------------|---------------------|---|----|
| 133 | 09.0158 | F17 | PT/C | M | 2Bo | M1 | r. - 10 R 5/6 + l.b. - 7.5 YR 6/4 | l.r. - 2.5 YR 6/6 | l.r.b. - 2.5 YR 6/4 | 1 | W |
| 134 | 08.1026 | L2,b1 | RS/ S | M | 4B | M5 | r. - 10 R 5/6; l.r. - 2.5 YR 6/8 | r. - 10 R 5/6; l.r. - 2.5 YR 6/8 | l.r. - 2.5 YR 6/8 | 1 | W |
| 135 | 09.0004 | L1,b2 | P/ S | MC | 4S | M3 | l.b. - 7.5 YR 6/4 | l.b. - 7.5 YR 6/3 | br. - 7.5 YR 5/4 | 1 | HW |
| 136 | 09.0152 | F17 | PS | M | 2So | M8 | l.b. - 7.5 YR 6/3 | br. - 7.5 YR 5/2 | l.r. - 2.5 YR 6/8 | 1 | W |
| 137 | 09.0983 | L8 | P/ S | M | 2S | M1 | l.b. - 7.5 YR 6/4 | l.b. - 7.5 YR 6/4 | g. - 7.5 YR 5/1 | 1 | W |
| 138 | 09.0898 | E16 | C/ S | MC | 3S | M9 | r.g. - 10 R 6/1 | p. - 7.5 YR 7/4 | g. - 7.5 YR 5/1 | 1 | HW |

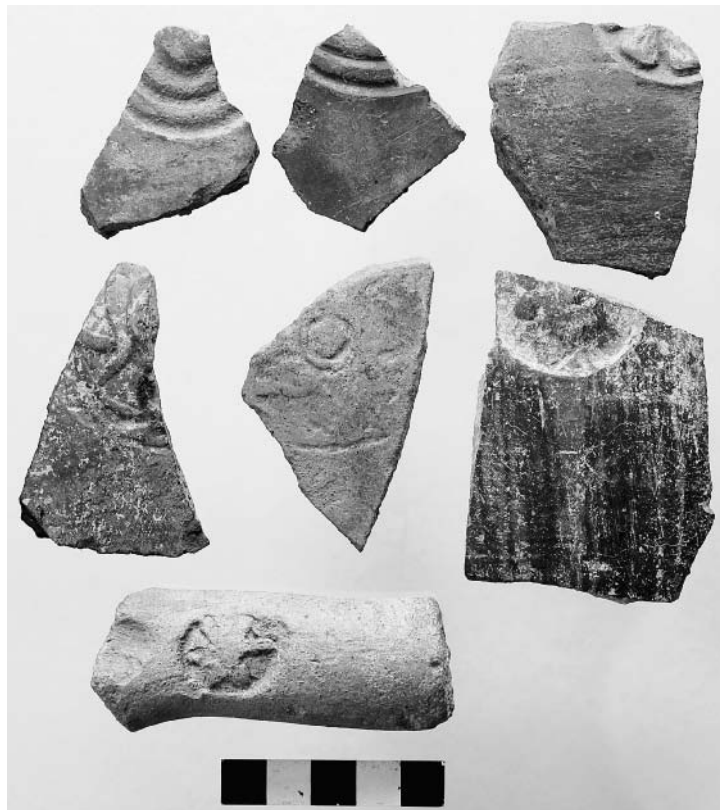


Fig. 25. Stamped sherds.

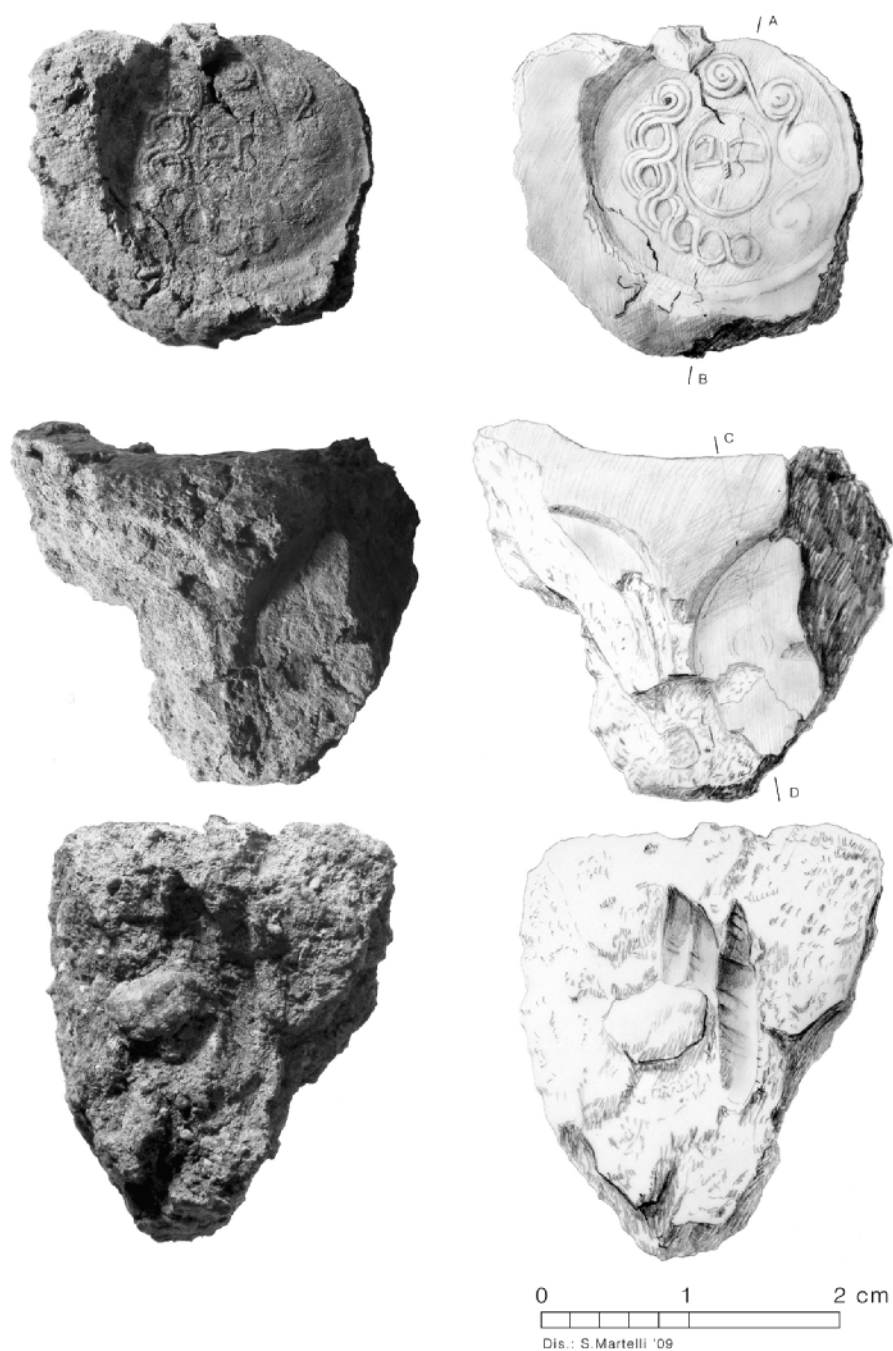


Fig. 26. The clay bulla UK09.Ob.1 (drawing by S. Martelli).



Fig. 27. Obverse, reverse and edge of the tablet UK09.Ob.2.

THE SURVEY OF PİR HÜSEYİN, 2004

*Brian L. Peasnall and Guillermo Algaze**

INTRODUCTION

Since 2002, the Diyarbakır Small Streams Archaeological Survey Project has worked to record archaeological sites in the piedmont region of the Upper Tigris Drainage Area just east of the city of Diyarbakır, north of the Tigris River, and west of the city of Batman and the Batman River (Peasnall 2003) (Fig. 1). The project is ongoing, and to date 108 sites have been recorded within the survey area. Unquestionably, one of the most important of these is the ancient settlement of PİR HÜSEYİN, situated some 25 km east of Diyarbakır on a high terrace overlooking the floodplain of the Ambar Çay, a minor perennial tributary of the Tigris. PİR HÜSEYİN has long been a focus of scholarly attention as the putative location where a justly famous stele of the Akkadian king Naram Sin was unearthed sometime in the last decade of the 19th century (below). Surprisingly, however, the mound had never been systematically surveyed, mapped, and collected until members of the Diyarbakır Small Streams Archaeological Survey Project did so in 2004.¹ What follows is a report on that work focusing on the setting of the site, its nature, chronology, and significance.

RESEARCH BACKGROUND

In 1892, Natik Effendi, a lawyer from Diyarbakır whose work often took him to villages in the vicinity of that city, visited the house of a local landowner and noticed a broken stone stele that had been incorporated into the retaining wall of a well. After he brought the monument to the attention of local museum authorities in Diyarbakır, the stele was quickly sent to the archaeological museum in Istanbul (ES 1027; Amiet 1975: 197, Fig. 105; Börker-Klähn 1982: 133, Fig. 25), where it remains today (Fig. 2).

Made of polished diorite, and measuring, as preserved, 57 x 42 x 20 cm, the stele bears the figure of a helmeted Mesopotamian king holding weapons. This royal personage is depicted in a style typical for art of the mature Akkadian period in southern Mesopotamia (Orthmann 1975), and is, in fact, identified in the accompanying inscription as Naram Sin, the powerful fourth ruler of the Akkadian Dynasty in southern Mesopotamia, whose reign is

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¹ The 2004 season consisted of Brian Peasnall (director), Guillermo Algaze (archaeologist), Michael Rosenberg (archaeologist), Mitchell Rothman (archaeologist) and İsmail Sarıpınar, who served as representative of the Directorate of Museums and Monuments of the Ministry of Culture in Ankara. The members of the project were ably assisted in all aspects of their work by Şehmus Kartal, director of the Culture and Tourism Ministry's office in Batman Province.

conventionally dated to ca. 2260-2223 BC. This identification is very important because we know from extant textual documentation (year names, contemporary royal inscriptions, later copies of such inscriptions, and later epics) that the early kings of the Akkadian Dynasty in southern Mesopotamia campaigned extensively against enemies situated across the high plains straddling the borders of modern day Iraq, Syria, and Turkey. Naram Sin, in particular, crossed the Tigris river repeatedly in order to campaign in areas east of the river in northern Iraq, the area then known as “Subartu”, and north of the Tigris in southeastern Turkey, the area then known as the “Upper Lands” (Frayne 1993; Steinkeller 1998; Westenholz 1999). Additionally, we know that Naram Sin was the first Akkadian king to have brought portions of Upper Mesopotamia under the direct control of Akkadian imperial administrators (Frayne 1993; Risvet and Weiss 2005; Westenholz 1999).

Soon after it arrived in Istanbul, the stele was examined and published by the Assyriologist Jean-Vincent Scheil (1893). Following publication, the stele was immediately, and correctly, understood as a record of the nature and extent of the activities of the Akkadian Empire in the Upper Tigris region. Naturally, this stimulated a search for its precise find spot. To this effect, the German explorer J.P. Naab (1934) traveled to Diyarbakır in 1902 where he located both Natick Effendi and the owner of the house in which the lawyer had first noticed the stele. There, Naab was told that the stele had been originally found at the small village of Pir Hüseyin on the Ambar Çay. When Naab arrived at Pir Hüseyin, he observed that the modern village was situated just south of an impressive ancient mound. In short order he was able to locate a villager who claimed to have been present when the stele was first discovered in 1890 as villagers dug into nearby ancient ruins to collect stones for use as foundations for their houses. According to the informant, the stele was found just east of the village that existed at the time of Naab’s visit, about 2 “cubits” (Ottoman *arsin*: ca. 1.3-1.5 meters) below the modern surface (Naab 1934: 33).² Based on this, Naab (1934: Pl. III, Fig. 5) provides a rough map for its find spot, redrawn here as Fig. 3, which places the stele directly southeast of the ancient mound of Pir Hüseyin as he understood it. Naab’s findings were confirmed two years later by the British scholar, Leonard King (1910: 245, note 1), who also traced the stele backwards from Diyarbakır to Pir Hüseyin and was also taken by local villagers to the exact location of the site where the stele was unearthed. Unlike Naab, King does not provide a map, but his description matches Naab’s point by point.³

² The *arsin*, an Ottoman unit of length, varied slightly depending on its use context. When used by architects, it was equivalent to ca. 75 cm; when used as a general unit of measurement in the marketplace, it was equivalent to ca. 68 cm; and when used specifically as a measurement for textiles it was equivalent to ca. 65 cm (Hinz 1970).

³ The Naab/King attribution of the Naram Sin stele to Pir Hüseyin is generally accepted by ancient Near Eastern scholars. One notable exception, however, is Jutta Börker-Klähn (1982: 133), who contends that the stele came instead from the village of Mayafarkin (modern Silvan, Byzantine Martyropolis, some 45 km northeast of Pir Hüseyin). Regrettably, Börker-Klähn does not discuss the reasons for this alternate attribution of the stele’s provenance. A recent definitive compilation of Akkadian Royal Inscriptions by Douglas Frayne (1993: 128) repeats the contrasting claims about the stele’s provenance without taking sides. However, an attribution of the stele to the Silvan area is, in our opinion, untenable in light of Naab and King’s careful detective work. We suspect that Börker-Klähn’s attribution of the stele’s provenance to a location other than Pir Hüseyin is ultimately based on an underestimation of the true extent of the settlement in the Late EBA (below).

Our work at the site indicates that the mound of Pir Hüseyin as Naab, King, and other early explorers understood it, represents only the citadel of a much larger ancient settlement, which was founded and grew to its maximum extent in the late third millennium BC, and that the stele, if in its original location, would have been situated towards the southeastern periphery of the lower town that surrounded the citadel at that time (Fig. 4). Further, our collections suggest that Pir Hüseyin continued to represent an important regional center through at least the first millennium BC, and was the locus of substantial occupations dating to the Middle Bronze, Late Bronze (Middle Assyrian), and Iron (Neo-Assyrian) Ages. However, before discussing the results that substantiate these preliminary conclusions, we need turn to a brief discussion of the regional and environmental context in which the site existed.

REGIONAL SETTING AND COMMUNICATIONS

The piedmont region of the Upper Tigris Drainage where Pir Hüseyin is located is a coherent region of high plains and low rolling hills north of the Tigris River and south of the Taurus mountains of southeastern Turkey (Fig. 1). Like the river, the piedmont runs in a northwest to southeast direction through southeastern Turkey, with the Taurus coming closer to the river towards the eastern edge of the piedmont. Within the survey area, the piedmont ranges in altitude from ca. 650 to 850 m in a west-east direction. It is characterized by relatively abundant and stable annual precipitation, which ranges from ca. 500 to 600 mm per year and naturally follows an increasing west (Diyarbakır: see Erinç 1950) to east (Silvan: see Bayraktar, Turalioglu, and Sen 2005) gradient that varies with the noted altitudinal changes. Today, the piedmont is intensively devoted to grain production. However, its natural vegetation would have consisted of an open forest of scattered oak and pistachio (Rosenberg et al. 1998), and remnants of this vegetation can still be observed in isolated spots too difficult to plow.

Pir Hüseyin sits atop a Pleistocene terrace overlooking the Ambar Çay, which flows about 340 m east of the site (Fig. 5). The precise location of the site within this terrace was probably determined by a line of substantial springs offering potable water to its inhabitants, which emerges some 130-170 m southwest of the High Mound within a seasonal creek that runs perpendicular (i.e., E-W) to the Ambar Çay. The Ambar Çay is the longest and most substantial of the several small perennial tributaries of the Tigris that cross the piedmont between Diyarbakır and Batman and drains the highlands of the Sason Dağ, a branch of the eastern Taurus Mountains (Fig. 1). Pir Hüseyin is situated about 37 km upstream from the Ambar Çay-Tigris confluence and about 18 km downstream from the base of the Sason Dağ.

Throughout history, the Upper Tigris Basin has served as an important conduit for transport and trade between the southeastern Anatolian Piedmont region and Mesopotamia to the south. The most important route between the two areas, attested in Assyrian (Kessler 1980; Parpola and Porter 2001), Persian, and Classical (Dillemann 1962) sources, sets out from the Khabur Triangle area of Syria and cuts across north-south oriented valleys in the Tur Abdin/Mazi Dağ mountains of southeastern Turkey before reaching the

Upper Tigris Basin via either the Göksu Valley or the Savur Çay. Important Assyrian capitals and Roman outposts existed at or near the confluence of each of these routes and the Tigris (Üçtepe/Kerkh/Tidu near the Göksu and Ziyaret Tepe/Tushan near the Savur, see Fig. 1). After reaching the right bank of the Tigris, the route from Mesopotamia followed either the course of the Tigris itself northwards into the Diyarbakır area, and from there into the copper-rich Ergani Maden region, some 60 km north of Diyarbakır, and the surrounding timber-rich forests of the Taurus highlands, or crossed the Tigris in the Üçtepe area and followed the course of the Ambar Çay northwards into the same areas. In either case, Pir Hüseyin served as a central point where these two routes came together. There are good reasons why this is so. At present, the modern road from Diyarbakır into the Taurus fords the Ambar Çay just a few km south of Pir Hüseyin and follows the river in a north-south direction for a substantial part of its course. This route is determined by a pass through the Sason Dağ, which today allows passage between the modern towns of Lice in the highlands and Hani in the piedmont at the very point where the Ambar Çay emerges from the highlands.

These same geographical constraints surely must have obtained in much earlier times and, in fact, our survey work at Pir Hüseyin provides strong circumstantial evidence that the Ambar Çay did serve to link the Taurus Piedmont and Mesopotamia in antiquity, either via the Diyarbakır area or, more directly, through the Ambar Çay-Tigris confluence, or both. Evidence for this role is clearest for the Late Bronze and Iron Ages. Occupations of Middle and Neo-Assyrian date at Pir Hüseyin documented by our survey (below) are bracketed by the use of the Tigris itself as the northern border of the Middle and Neo-Assyrian empires (Kessler 1980; Radner and Schachner 2001) and by contemporary Middle and Neo-Assyrian rock reliefs and inscriptions (Börker-Klähn 1982: 177-178; 187-189, nos 130, 149, 150, T38₁₅₁, T39₁₅₁) carved during the reigns of Tiglath Pileser I (1114-1076 BC) and Shalmanesser III (858-824 BC) in the so called Tigris-Tunnel area, which is situated upstream from Pir Hüseyin near Lice, at the location considered by the Assyrians as the “Source of the Tigris” (Harmansah 2007). Similarly, the late third millennium occupation of the site (below) correlates with a claim made by Naram Sin in one of the later year names of his reign to the effect that he too reached the “Source of the Tigris” (Frayne 1993: 86). If we presume that that particular turn of phrase meant the same in the Akkadian period as it did later in Assyrian times, it is clear that in their search for the “Source of the Tigris,” the armies of successive Akkadian and Assyrian raiders and imperialists would have needed to pass through Pir Hüseyin, which would have either stood in their way or facilitated their passage. This naturally brings us to an examination of what we now know about the site in those periods.

SURVEY METHODOLOGY

Members of the Diyarbakır Small Streams Archaeological Survey Project first visited Pir Hüseyin at the end of the 2003 season. It immediately appeared clear to them that the high mound noted by early explorers was in fact surrounded by a previously unreported and much larger lower town. However, a more thorough exploration of the

whole settlement aimed at defining its extent and chronology had to wait until the 2004 season. Work at the site took place over a period of three days. Much of our effort went into defining the extent and boundaries of the lower town, mapping the site, and intensively collecting material from the surface of each morphological area indicated by its topography so as to ascertain, however crudely, how the settlement grew and contracted over time (Fig. 6).

The extent and location of the lower town were defined by walking transects from the base of the high mound in every direction. The actual boundaries of occupation were estimated conservatively, being set at the point where the frequency of surface finds (comprised of a combination of sherds, broken limestone pieces from plowed-out walls, and, more rarely, broken vesicular basalt chunks from grinding stones) began to decline noticeably. The boundaries thus defined were then physically flagged so that a team of professional surveyors hired in Batman could help us map the settlement.⁴

After the boundaries of the site had been defined, the site was divided into a series of morphological areas based on its topography. These are: (1) the High Mound, (2) the East Terrace, a small promontory just at the base the High Mound on its east side, (3) the East Lower Town, directly to the east of the East Terrace, and (4) the North and (5) West Lower Towns, directly north and west of the High Mound respectively (Fig. 6). Each of the morphological areas as well as the north, south, east and west slopes of the High Mound, were collected separately and is discussed below. We also identified a southern extent of the Lower Town, but this area was neither collected nor contour-mapped in detail because it is partly covered by the collapsed ruins of the village of Pir Hüseyin that existed at the time Naab and King visited the site and partly obscured by the rebuilt modern village immediately south of those ruins (Fig. 7).

Because of time constraints, and because our work in Pir Hüseyin is only intended as a preliminary exploration that, hopefully, will spur more intensive survey and excavation work by interested researchers in the near future, surface artifact collections focused only on identifiable diagnostics, usually, but not always, rims or decorated body sherds. This of course introduces some potential biases in our data leading to thin or friable wares being underrepresented in our samples, but enough examples of such wares were picked up in our survey (e.g., Fig. 10: B-C) to suggest that biases affecting our collections may only be of minor consequence. Details of the site's internal morphology and of the diagnostic wares and types collected in the various morphological areas of the settlement are provided below. Representative examples of those diagnostics are illustrated in Figures 10-14.

SURVEY RESULTS

Pir Hüseyin High Mound. The High Mound or Citadel of Pir Hüseyin (Fig. 8) is the only part of the site previously recognized by researchers. The High Mound is roughly oval in shape and measures some 220 m (N-S) by 190 m (E-W), amounting to an area of ca. 4.2

⁴ Odak Mühendislik LTD, under the direction of Mr. A. Vahap Bas.

hectares. It rises ca. 25 m above the level of the surrounding west portion of the lower town and ca. 18 meters above the level of the eastern portion of the lower town. A large depression on the northwestern corner of the High Mound, roughly midway up the slope, may indicate the presence of a large gateway (Fig. 6). The top of the mound was collected separately from its steep slopes. The top had not been plowed at the time of our visit and had relatively few finds. Accordingly, the bulk of the collections from the High Mound come from erosional deposits in its slopes. However, a cut on the lower west side of the High Mound recently made by villagers prior to the time of our visit (Fig. 6 “cut 1”) provided a few apparently in-situ sherds that were collected separately (Figs. 10 M; 11 B, L).

The earliest materials in the High Mound are represented by a handful of obsidian chips, probably debitage. In the absence of hydration studies, these chips cannot be dated. One possibility is that they reflect an otherwise unrecognized occupation of Neolithic or Chalcolithic date somewhere at the core of the site. Another is that they correspond to an Early Bronze Age occupation of the High Mound and represent but trinkets brought into the site at a time when obsidian tools were no longer particularly common. However this may be, it is clear that some sort of an occupation dated to the later part of the Early Bronze Age date existed in the High Mound. That occupation is attested in our collections in part by a single sherd of Malatya/Keban-style EB III Painted Ware (Fig. 10: A), which is dated to the mid third millennium BC (Marro 1997: 84-87, Pls. 68-78 [“group G”]). Roughly contemporary with this, may be one small black burnished Karaz/Early Transcaucasian Ware body sherd (not illustrated), but this piece was non-diagnostic and could not be dated with any precision. We are on safer ground in the case of several diagnostic rims of Metallic Ware (also known as “Stone Ware”) cups with beaded or folded over rims (Fig. 10: B-C), which are most common in mid third millennium levels at a variety of sites in the Upper Euphrates, Balikh, and Upper Khabur areas but which are also present, albeit in smaller proportions, in levels dated to the later third millennium in sites in those same areas (Kühne and Schneider 1988; Oates 2001: 151-55) as well as in the Upper Tigris Basin (Özfirat 2006: 47-48, Pl. XIX: 4-10).

The existence of levels dating to the late third millennium within the High Mound is indicated by a number of characteristic hemispheric bowls made of a dense orange paste and decorated with a characteristic dark band on the exterior upper wall and rim (e.g., Fig. 10: D, E, L). Widely known in the literature as “Dark-Rimmed Orange Bowls,” this type is best dated at Tell Brak, where it occurs rarely but consistently within “Akkadian” and “post-Akkadian” levels (Oates 2001: 162).⁵ A comparable dating is suggested at both Üçtepe and Ziyaret Tepe, where the type is found in stratigraphic contexts immediately preceding levels dated to the earlier half of the second millennium BC (Özfirat 2006: 48; Roaf 2005: 21-23).⁶

⁵ The single exception to this is one example at Brak that comes from a securely dated “ED III” level (Oates 2001: 162), a term which is used at Brak to describe levels that immediately predate the incorporation of the site as a province of the Akkadian empire and the construction of the Naram Sin “palace.”

⁶ Interestingly, because of their relative paucity at the Tell Brak, Oates (2001: 162) has suggested that Dark-Rimmed Orange Bowls found at the site were imported into the Upper Khabur region and that the area of natural distribution for this type may well be the Upper Tigris Basin in southeastern Turkey, where the type is reported from numerous

The next period of occupation attested in the High Mound can be assigned with some confidence to the MBA or the first half of the second millennium. This is represented by chaff-tempered wares covered on their exterior surfaces with a red-brown wash, which are now commonly referred to in the literature as “Red-Brown Wash Ware” (e.g., Fig. 10: G-K, M). This assemblage is typical for the Middle Bronze Age within the Upper Tigris Basin of southeastern Turkey (Parker and Schwartz-Dodd 2003; Bartl 2005).⁷ At a minimum, a date within the first quarter of the millennium can be inferred for this assemblage on the basis of its association with imported Old Assyrian Khabur Ware pots on floors at Üçtepe (Sevim 1993: 177, Fig. 7; Özfirat 2006: 53, Pls. XC-XCI), a dating now corroborated by new C14 dates from Kenan Tepe (Parker and Schwartz-Dodd 2003: Table 3). However, recent C14 dates from the “Brightly Burned Building” at Ziyaret Tepe (Roaf 2005: 22), where the Red-Brown Wash Ware assemblage is present, though not predominant (Matney et al 2003: 185), suggest that it continued in use well into the second quarter of the second millennium.

Middle Assyrian ceramics were common at Pir Hüseyin – not surprisingly in light of Assyrian imperial activities along the Upper Tigris in the 13th, 12th, and earlier part of the 11th centuries BC (Kessler 1980; Radner and Schachner 2001). In the High Mound, these come mostly from slope erosion and from the modern cut into the west side of the mound noted earlier. Common types include coarse shallow chaff-tempered plates (e.g., Fig. 11: M-N), large-sized vat rims (e.g., Fig. 11: C-D), and large neckless jars with club or square shaped rims (e.g., Fig. 11: K). Comparable types are attested across northern Mesopotamia (Wilkinson and Tucker 1995: 98-100, Fig. 72), and find close parallels in Middle Assyrian imperial settlements along the Tigris Frontier, such as Üçtepe (Köroğlu 1998: Figs. 5-8) and Ziyaret Tepe (Matney 1998: 24, Fig. 6).

The next period of occupation attested in the High Mound is the Early Iron Age, dated to the two centuries or so that elapsed between the end of Middle Assyrian expansion into the Upper Tigris at the beginning of the 11th century and the resumption of Assyrian interest in the area during the earlier part of the 9th century BC. On the High Mound, this period can be recognized by at least two rim sherds of handmade, wide mouthed, globular jars with lightly burnished surfaces and characteristic grooved rims (Fig. 11: A). This type finds numerous parallels in the Upper Tigris Basin (Parker 2001: 176; Fig. 5.6; Köroğlu 1998: Fig 16: 5. 10, 19-20; McDonald 2005: Fig. 4: 2, 5: 19-20), where, when found in stratigraphic contexts, it is the predominant component of indigenous

surveyed (Algaze, personal observation 1989-90 and Özfirat 2006: Pls. XXVI-XXXI) and excavated (Özfirat 2006; Roaf 2005) sites. Recent petrographic and geochemical analyses conducted by Mustafa Kibaroglu (2008:7) at the University of Tübingen indicates that “they were manufactured from local clays exposed between Diyarbakır and Bismil in South East Anatolia and then traded to northeast Syria, and as far as south of Al-Hasakah,” thus confirming Oates’ insight.

⁷ The ubiquity of Red-Brown Wash Ware in sites across the Upper Tigris in southeastern Turkey was first noted by Algaze, who erroneously attributed the ware to the Classical Age (Algaze et al. 1991: 184). Since then, this mistake has been corrected by researchers conducting more intensive research in the area and the ware has been recovered in good stratigraphic contexts of Middle Bronze Age date at a number of excavated, minimally including (from west to east): Üçtepe (Sevim 1993; Özfirat 2006), Ziyaret Tepe (Roaf 2005), Giricano (Bartl 2005), Kenan Tepe (Parker and Schwartz-Dodd 2003), Salat Tepe (Ökse 2006), and Hirbemerdon Tepe (Laneri et al. 2006).

assemblages found in levels intervening between otherwise well dated Middle and Neo-Assyrian contexts.⁸

After a hiatus corresponding to the Early Iron Age, the Upper Tigris area of south-eastern Turkey again became the focus of Assyrian imperial ambitions in the 9th century BC and Assyrian activities in the region continued well into the 7th century BC (Kessler 1980; Radner and Schachner 2001). Not surprisingly, this is reflected at Pir Hüseyin. On the High Mound, Neo-Assyrian ceramics are common and include typical jars with inturned necks and banded, grooved, or club-shaped rims (e.g., Fig. 11: B, H-J) and a variety of sharply carinated open bowls (e.g., Fig. 11 E-G). The latter include at least two examples of dense, finely-made, Assyrian Palace Ware, almost certainly imports (Fig. 11 F-G). Comparable types are attested across northern Mesopotamia (Curtis 1989; Wilkinson and Tucker 1995: 100-01, Fig. 73) and find close parallels in Neo-Assyrian imperial settlements along the Tigris Frontier, such as Üçtepe (Koroğlu 1998: Fig. 10) and Ziyaret Tepe (Matney 1998: 24, Fig. 9).

A single, otherwise undated, glazed (greenish) body sherd (not illustrated) is the only evidence we have for the use of the High Mound at Pir Hüseyin after the Neo-Assyrian period.

Pir Hüseyin Lower Town. As noted earlier, an extensive lower settlement surrounded the High Mound of Pir Hüseyin in every direction, creating a number of distinct occupational areas or lobes of varying depth and extent. Although these areas blend into each other, they were collected separately, insofar as possible, and are discussed separately below.

East Terrace. Immediately at the eastern base of the High Mound is a high terrace area that rises, on average, about 4 meters above the level of the lower surrounding occupation. This terrace extends for ca. 90 m due east of the High Mound and runs for a distance of ca. 130 m along its base from north to south. This raised sector of the Lower Town may mark the location of particularly massive architecture at one point in the site's history, accounting for the increased height of deposits. It comprises an area of ca. 1.2 hectares.

Collections from this area yielded one Dark-Rimmed Orange Bowl body sherd and one small Metallic Ware body fragment (not illustrated), both of third millennium date, several Mid EBA Red-Brown Wash Ware types (e.g., Fig 12: C, D), and two jar rims of Neo-Assyrian date (Fig. 12: A-B). Additionally, one late Islamic green glazed body sherd (not illustrated) was also found here.

East Lower Town. The eastern lobe of the Lower Town extends for a distance of 140 m due east of the High Terrace just described and extends for an average of 60 m further to the south and north of that terrace as well, encompassing an area of 4.3 hectares (Fig. 6). According to Naab's rough sketch (Fig. 3), this is the area of the settlement where the Naram Sin stele was unearthed (Fig. 4). If correct, and if the stele was in situ

⁸ Note, however, that at least in Ziyaret Tepe isolated grooved rim Iron Age sherds continue in use in relatively small proportions well into the succeeding Neo-Assyrian period (T. Matney, Pers. Comm. 2008).

when found, this implies that late third millennium levels lie relatively close to the surface in this portion of the ancient settlement.

Collected ceramics in the East Lower Town included one Dark-Rimmed Orange Bowl (Fig. 12: I) and two small Metallic Ware body fragments, both of mid to late third millennium date. Other diagnostics consisted of Red-Brown Wash Ware specimens (e.g., Fig. 12: G, J, K) and one presumably contemporary early second millennium Khabur Ware-like jar sherd (Fig. 12: H), which may either be an actual import or a local imitation of one. Interestingly, no recognizable Middle or Neo-Assyrian diagnostics were found in this area.

North Lower Town. The northern lobe of the Pir Hüseyin Lower Town extends for a distance of 100-130 m due north and northeast of the High Mound and is about 300 meters in width from east to west. It comprises an area of roughly 3.6 hectares in extent (Fig. 6). This area has a very distinctive topography. Two low mounds at the northern edge of the Northern Lobe may represent the remains of a city wall, and it is perhaps noteworthy in this context that artifactual scatters across the lobe went up to the base of the low mounds but not beyond. In turn, a long depression running along the northern edge of the lobe just beyond the two rises may well turn out to be the remnants of an associated moat. However, these working hypotheses must await more detailed research at the site in the future.

Ceramic diagnostics in the North Lower Town area included several Dark-Rimmed Orange Bowls (Fig. 13: B, C), many examples of Red-Brown Wash Ware (e.g., Fig. 13: D, G-I), and only one Middle Assyrian platter fragment (Fig. 13: A). Clear Neo-Assyrian diagnostics were not identified. Of particular interest among the finds here was one broken limestone metal mold for crafting adzes (Fig. 13: E). While this mold cannot be dated with any precision, it suggests the location of copper processing installations within Pir Hüseyin, and leaves little doubt that at some point during the third and second millennia the inhabitants of the settlement were exploiting the copper resources that existed in the Ergani Maden area, not far from the site.

West Lower Town. The West Lower Town at Pir Hüseyin was built on a natural rise due west of the High Mound and directly north of the large springs adjoining the site, noted earlier. Occupational debris over this area could be traced for a distance of 230 m away from the base of the High Mound from east to west and at least 220 m to the north of the springs, for a total extent of 5.5 hectares (Fig. 6).

A clue to the depth of occupational deposits in this area is provided by a recent cut made by villagers while enlarging one of the springs that flank this portion of the site. This cut exposed a portion of a stone wall that was about two and a half meters below the surface of the ancient settlement. Because of trash and other debris at the bottom of the cut, it was not possible to ascertain whether deeper occupational layers existed but the wall provides us with a minimal estimate for the depth of deposits over the West Lower Town.

Ceramics found within the cut could not be directly associated with the wall but included one eroded Late EBA Dark-Rimmed Orange Bowl fragment, several small bodies of MBA Red-Brown Wash Ware, and rims of two Middle Assyrian platters, and one Neo-Assyrian bowl (not illustrated). These diagnostics are representative of the main

periods of occupation of the West Lower Town as our surface collections over the area added one other body fragment of a Dark-Rimmed Orange Bowl, an incised and combed body sherd (Fig 14: E) of a type common in the late third millennium levels in northern Syria and Iraq (compare, respectively, Oates 2001: Fig. 196, top right; Wilkinson and Tucker 1995: Fig. 69: 21, 22, 27), numerous Red-Brown Wash Ware examples (e.g., Fig 14: D, F-I), and several Mid (Fig. 14: B) and Neo-Assyrian (Fig. 14: C) diagnostics.

South Lower Town. As noted earlier, the southern extent of the Lower Town could neither be mapped nor collected because of modern disturbances. We suspect that this area of the ancient site continues well under the present village but we were unable to verify this in the time we had at the site. However, we did observe that the ruins of the earlier modern village at Pir Hüseyin, the village that existed at the time of Naab and King's visits, were clearly cut into the ancient mound. Those ruins occupy an area of ca. 3 hectares.

External Cemetery. A survey of the nearby region surrounding the site revealed an extramural cemetery located approximately 450 meters away from the southern boundary of Pir Hüseyin (Figs. 5 and 9). This site, Simak Tepesi Mezarlık, is located on a bluff overlooking Pir Hüseyin and the Ambar Çay valley. At the time of our visit to Simak Tepesi Mezarlık, three graves had been looted, revealing numerous pithos-sized sherds of Red-Brown Wash Ware and a type of ware that had until then been only encountered in surface surveys. This ware, which we have labeled as Dribbled White Wash Ware, appears to be related to Red-Brown Wash Ware with which it was found. It is decorated with a thick white wash, which was allowed to drip down the sides of the vessel (Fig. 15).

Because Simak Tepesi was covered in tall grasses at the time of our visit, which obscured visibility, the extent of the area used as a cemetery could not be calculated. However, we believe it is likely that further graves existed at Simak Tepesi and that the site served as a external cemetery for Pir Hüseyin, at least during the Early MBA period.

CONCLUSIONS

In light of the above observations about the morphology of the site, the extent of its component areas, and their chronology, it is now possible to summarize, however crudely, the historical evolution of the Pir Hüseyin settlement and to speculate, however prematurely, about its significance at different points in its history.

It is clear that the earliest florescence of the site as a significant settlement took place sometime the second half of the third millennium. All of the surveyed morphological areas of the site were in fact occupied at that time and the site therefore was minimally 19 hectares in extent at the time. However, this estimate must be considered an absolute minimum as it does not include the southern extent of the settlement's Lower Town, which is both disturbed and obscured by the successive modern villages adjoining the ancient settlement. Although we will have to wait until the full results of completed and ongoing surveys along the Tigris itself and along its tributaries between Batman and Diyarbakır are known to clarify how Pir Hüseyin fits into the hierarchy of EBA settlement in the Upper Tigris region, it seems likely that at 19 plus hectares, Pir Hüseyin was one of the

largest indigenous Late EBA settlements in the area. The site may thus well represent a local variant in the historically somewhat peripheral Upper Tigris Piedmont region of the larger urban centers that emerged further to the south across the high plains of southeastern Anatolia, northern Syria, and northern Iraq during the second half of the third millennium, a process recently discussed by numerous scholars (Wilkinson 1994, with references; Ur, *in press*).

If this observation is correct, it is clear that the Upper Tigris Basin of southeastern Turkey was spared the collapse of urban institutions that affected some parts of the Upper Mesopotamian plains at about 2200 BC, particularly the easternmost drainages of the Upper Khabur basin of Syria (Weiss et al. 1993). At a minimum, the reasons for this divergence are likely to be found in the increased resiliency of agricultural regimes dependent on rainfall agriculture in the Tigris Piedmont as a result of the increased precipitation typical for the area as contrasted with the agriculturally more marginal and more densely populated plains of Upper Mesopotamia south of the Tur Abdin. A recent review of the evidence for how widespread the impact of decreased precipitation was across the Ancient Near East at the end of the Early Bronze Age concludes that a substantial degree of variability did in fact exist in the human response to climatic change within the area at that time, depending on geographical, ecological, and cultural variables (Algaze and Pournelle 2003; Marro and Kuzucuoğlu 2007), and the persistence of settlement at Pir Hüseyin through the end of the third millennium very much argues for the need to understand developments in the Upper Tigris Basin of southeastern Turkey largely in terms of local adaptations.

That said, however, the Upper Tigris Piedmont of southeastern Turkey was the gateway to important resources: copper in the Ergani Maden area and timber and iron (Parker 2002) in the nearby Taurus region (the latter only important in the first millennium BC), and the area was never entirely isolated from developments elsewhere in the ancient Near East. In fact, as already noted, the Upper Tigris Basin was often the focus of periodic incursions by more powerful polities to the south, which coveted resources accessible through routes across the Tigris Piedmont and/or used the Tigris itself as a Maginot Line-like boundary to keep enemies at bay.

The Naram Sin stele recovered at Pir Hüseyin provides early evidence for how attractive the Upper Tigris Basin of southeastern Turkey must have been to militarily powerful but resource poor Mesopotamian polities. It is clear that the Akkadians in general and Naram Sin in particular had a voracious appetite for Anatolian resources, principally copper and timber (Goodnick-Westenholz 1998) and it is in this context that the Pir Hüseyin stele must be understood. Although later epics (Sar Tamhari) of Old and Middle Babylonian date make (anachronistic?) reference to independent Akkadian merchants operating in Anatolia (Goodnick-Westenholz 1983: 329), it is clear that the bulk of the Anatolian resources that reached southern Mesopotamia in the Akkadian period were acquired instead as plunder during the course of military campaigns.

The stele would seem to record one such campaign. When it first came to light, and for most of the 20th century, the stele was thought to commemorate Naram Sin's laying of the foundation of a temple (Scheil 1893, Borker Klähn 1982: 134).⁹ However, more recent readings of the monument indicate that it commemorates instead Naram Sin's victory over an unknown enemy and his erection of a burial mound, presumably over their bodies (Westenholz 1970: 28; Frayne 1993: 128). While we do not know exactly when Pir Hüseyin was subdued and the stele erected, almost certainly the conquest of the town took place relatively late in Naram Sin's reign, during the course of campaigns his armies undertook in the "Upper Lands" (Frayne 1993: 131), a term that in the Akkadian period refers to Anatolia north of the Tigris (Steinkeller 1998: 95-6). In those campaigns, Naram Sin claims to have reached the sources of both the Tigris and the Euphrates while vanquishing the otherwise unknown polity of Semaninda (Frayne 1993: 86). It is tempting to conjecture that Pir Hüseyin might be Semaninda, but this is entirely unclear for two reasons. First, the text mentioning Semaninda (a year name) does not specify whether it was situated in the Upper Tigris or the Upper Euphrates. Second, Semaninda was hardly the only Anatolian city vanquished by Naram Sin. In fact, a recently published Akkadian royal inscription, which is attributable to Naram Sin on the basis of its associated titulary, lists the names of several other conquered Anatolian city-states, regrettably none yet identifiable (Goodnick-Westenholz 1998: 12).

In any event, what is clear from our survey of Pir Hüseyin is that the site was certainly the sort of contemporary indigenous center that would have attracted the attention of Naram Sin in the first place, and that, on account of its location and size, was also the sort of place that the Akkadian king and his armies would have needed to overcome in order to reach the "Source of the Tigris."

Much work remains to be done to clarify the nature of the transition from the EBA to the MBA in the Upper Tigris Basin, and surface explorations are unlikely to shed much light on that issue. It appears certain, however, that Pir Hüseyin continued to represent a sizable regional center in the MBA, and certainly in the first quarter of the second millennium, as shown by the presence of numerous Red-Brown Wash Ware sherds in each of the morphological areas of the site. Accordingly, the settlement's extent was again in the 19 plus hectare range at this time, and the site thus appears to have been more substantial than any of the contemporary sites thus far recorded in Tigris Basin north of the Tigris River itself. Interestingly, the painted ceramics and fine ware cups (Nuzi Ware) that archaeologists recognize as typical for the very end of the MBA sequence in northern Mesopotamia (Pfälzner 1995), when the Tigris Piedmont was under the control of indigenous Mittanian kingdoms (Wilhelm 1989), appear absent from our collections. It is unclear whether this represents a hiatus in occupation at the site at this time or a methodological bias in our data that can be corrected in the future by more intensive collection methods.

Be that as it may, the situation becomes clearer in the Late Bronze Age, when the inhabitants at the site came into contact with an expanding Middle Assyrian empire that

⁹ A full bibliography of transcriptions, translations, and interpretations can be found in Borker-Klähn 1982: 134.

used the Tigris as its northern frontier, particularly during the 13th and 12th centuries (Kessler 1980). Additionally, we know that Assyrian military incursions north of the Tigris continued sporadically until the transition from the 12 to the 11th centuries, as evidenced by the Assyrian Royal Annals (Grayson 1991: 14-15) and, more directly, by the Tiglath Pileser I relief near Lice, noted earlier. Absent excavation, we have no way of knowing whether the Middle Assyrian ceramics found at Pir Hüseyin reflect an indigenous polity that was in contact with, and affected by, the nearby Assyrian presence along the Tigris frontier or whether an Assyrian garrison was installed at Pir Hüseyin at some point during the Late Bronze Age. These possibilities are, of course not mutually exclusive, particularly over a period spanning two centuries. In either case, however, it is certain that in their march to the “Source of the Tigris” the Assyrians could not have failed to have come upon Pir Hüseyin.

However, the LBA site that the Assyrians encountered was smaller than the earlier Late EBA/MBA regional center that preceded it. Middle Assyrian diagnostics were not identified in the Eastern Terrace or the adjoining Eastern Lobe of the Lower Town, and accordingly, at most, Pir Hüseyin would have been about 13 hectares at the time. However, it is likely to have been smaller because the Middle Assyrian presence in the North Lower Town is attested by but a single sherd. Our survey indicates that the only portions of the site where Middle Assyrian ceramics are common are the High Mound and West Lower Town, together accounting for a probable extent of 9.7 hectares for the site in the second half of the second millennium.

According to the Assyrian Royal Annals, the areas to the north of Assyria proper, including the Tigris basin of southeastern Turkey, came under the control of Aramean tribes following the collapse of Middle Assyrian Empire in the 11th century BC (Postgate 1992). In the Upper Tigris area, this time period corresponds with the Early Iron Age, and materials of the time, though plentiful, are generally restricted to relatively small sites (Parker 2001). Pir Hüseyin was no different. Early Iron Age materials were rare at the site and were only identified in the High Mound. Therefore, the indigenous Early Iron Age settlement at the site could not have been larger than 4 hectares in size and is likely to have been much smaller.

Assyrian imperial expansion into the Upper Tigris area of southeastern Turkey resumed with relative suddenness in 882 BC, when Assurnasirpal II campaigned in the region and established an Assyrian provincial capital at Tushan, now securely identified as Ziyaret Tepe (Parpola 2008). The Assyrian presence in the area was expanded further in the 7th century BC, when previously independent polities in the Tigris Piedmont just north of the Tigris (Land of Subria) were incorporated into the provinces of Kullimeri and Uppumu, the latter including the length of the Ambar Çay and the nearby Diyarbakır area (Radner and Schachner 2001: 760, Figs. 1-2). Accordingly, we should expect to find significant evidence of a Neo-Assyrian presence at the site, one that possibly evolved over the centuries, and this is indeed the case. However, Neo-Assyrian ceramics were only identified in the High Mound, in the immediately adjoining Eastern Terrace, and in the Western Lobe of the Lower Town, amounting for a total occupied area at the time of 10.9 hectares. This was the last significant occupation of Pir Hüseyin in antiquity.

FINAL REMARKS

It should be clear from the preceding discussions that Pir Hüseyin very much merits more intensive research efforts in the future. Of the myriad potential projects that could be imagined at the site, few would be more attractive than a research effort that takes advantage of the morphology and depositional history of the Lower Town in order to open relatively large exposures of MBA and Late EBA date at relatively little cost. This would provide much new information about the earliest indigenous complex societies that emerged in the Tigris Piedmont area of southeastern Turkey without unduly duplicating ongoing archaeological work in nearby areas of the Upper Tigris affected by the Ilisu Dam reservoir.

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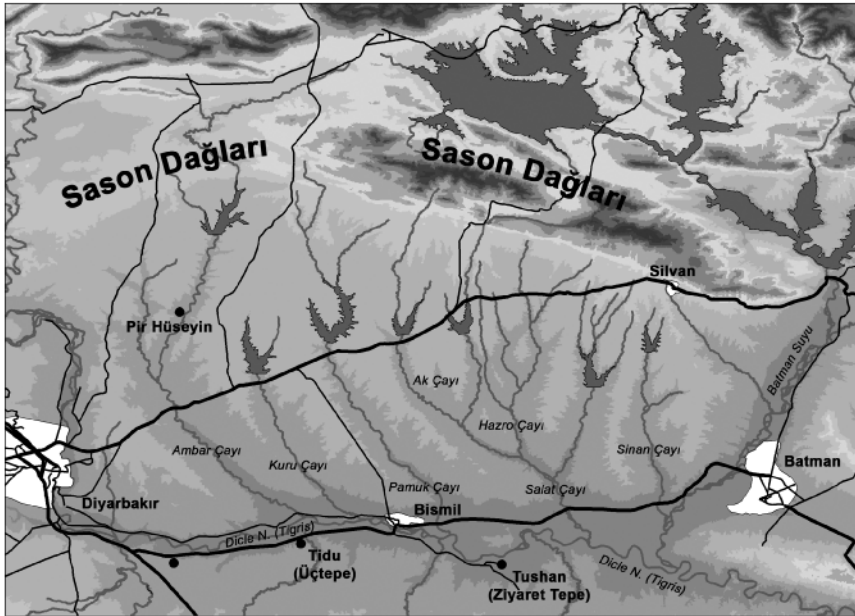


Figure 1: Map of the Upper Tigris Drainage Region. The focus of the Diyarbakır Small Streams Archaeological Survey is the area between the cities of Diyarbakır and Batman and the area between the Tigris River and the Sason Dağları.



Figure 2: Naram Sin Stele (ES 1027) reputedly found at the village of Pir Hüseyin and now on exhibit at the Museum of the Ancient Orient of the Istanbul Archaeology Museum.

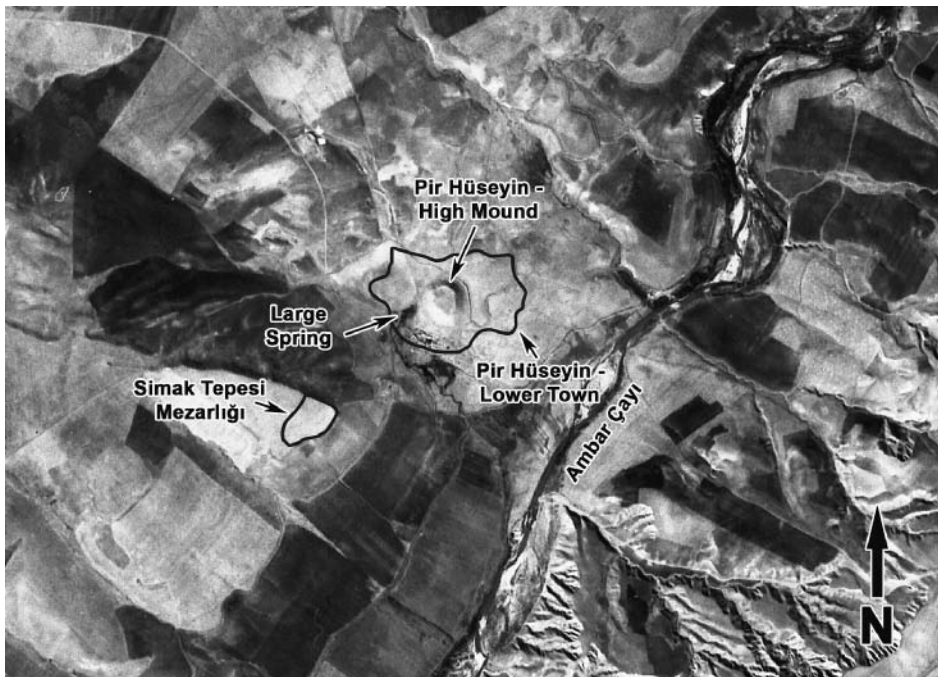


Figure 5: CORONA satellite image showing the location of Pir Hüseyin and Simak Tepesi Mezarlığı.

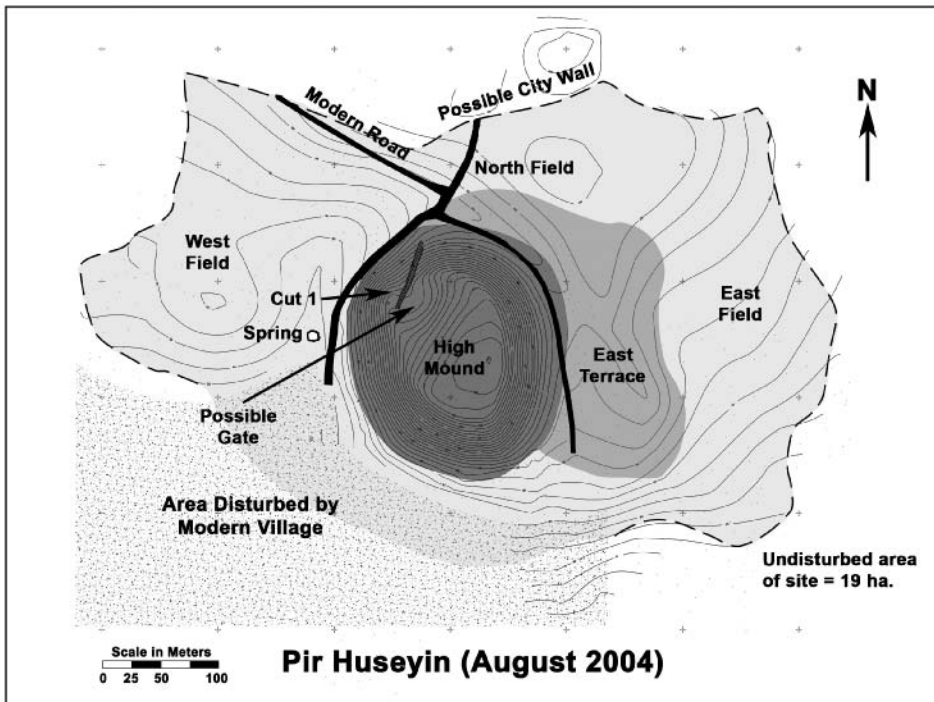


Figure 6: Morphological areas and features represented at Pir Hüseyin.



Figure 7: View of the southern portion of the lower town showing the disturbed area of the old village in the foreground and the high mound in the background.



Figure 8: General view of Pir Hüseyin showing the location of the village and the disturbed southern portion of the lower town. The east terrace is visible to the right of the mound just beyond the village.



Figure 9: Simak Tepesi Mezarlığı, a 3rd to 2nd millennium extramural cemetery associated with Pir Hüseyin, as seen from the village.

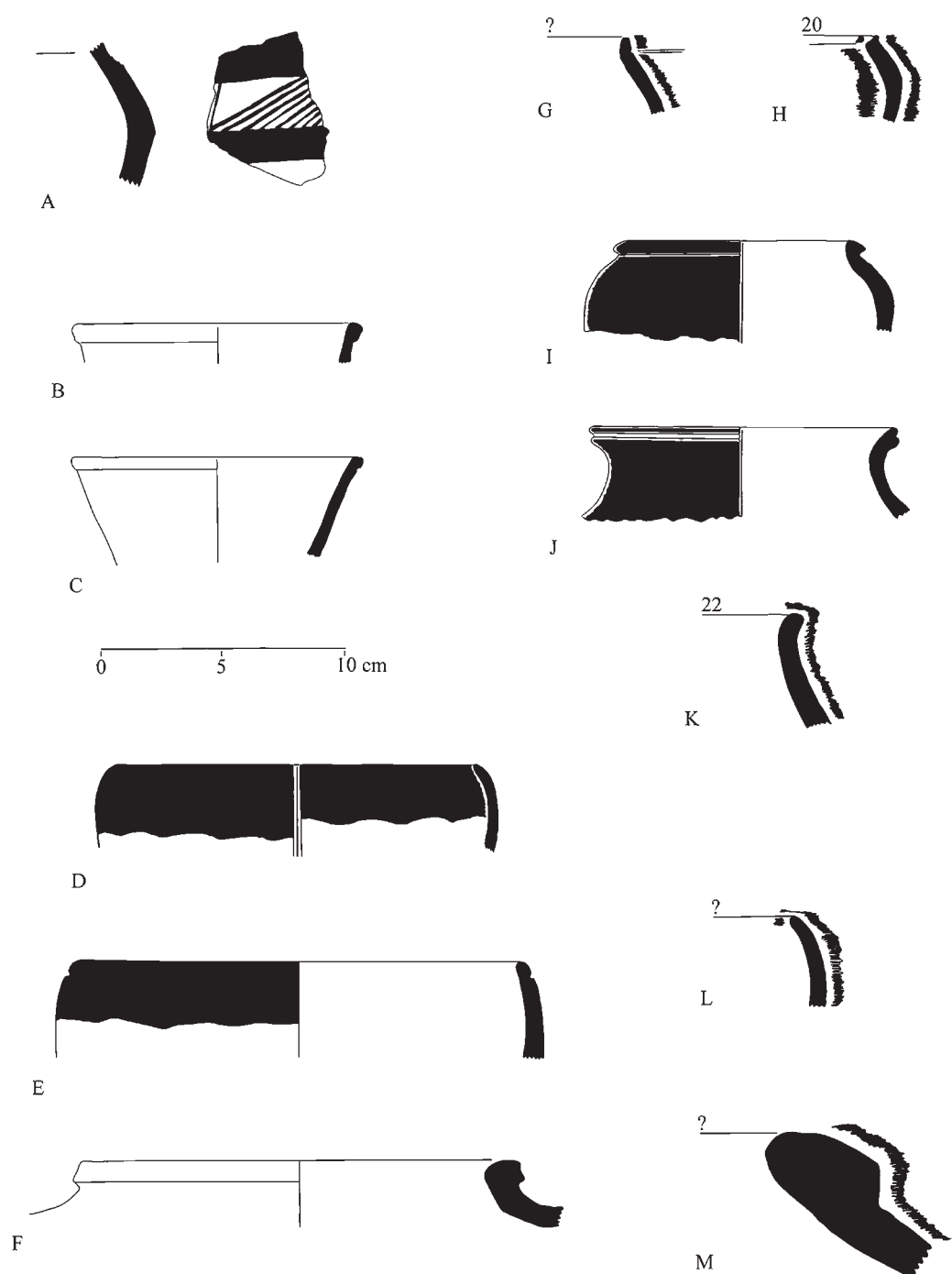


Figure 10: Surface Pottery from High Mound at Pir Hüseyin. General Collection: A-L; "Cut 1": M.

Figure 10: Surface Pottery from High Mound at Pir Hüseyin. General Collection: A-L; “Cut 1”: M.

Dense orange clay. Small and medium-sized grits scattered throughout. External paint is brown.

Metallic Ware. Dense, grey clay with no visible tempering.

Metallic Ware. Dense, greenish-grey clay. Minute white grits used as temper.

Dark-Rimmed Orange Bowl. Orange clay with dense chaff temper. Both surfaces covered with dark, reddish-brown paint or wash.

Dark-Rimmed Orange Bowl. Dense, orange chaff tempered clay with occasional small-sized white grits also used as temper. Brown paint on interior and interior surfaces. Unpainted areas of bowl are burnished.

Red-Brown Wash Ware. Brown clay, chaff tempered. Wash-paint largely eroded from exterior surface.

Red-Brown Wash Ware. Dense, orange clay, chaff tempered but occasional small-sized white grits also used as temper. Reddish-brown paint on exterior. Interior surface is burnished.

Red-Brown Wash Ware. Orange clay, chaff tempered but occasional small-sized white grits also used as temper. Both surfaces covered with thick, orange, paint/wash. Exterior surface mottled brown, possibly from burning.

Red-Brown Wash Ware. Dense, grey clay, chaff tempered. Exterior surface covered with black paint/wash. Interior surface is burnished.

Red-Brown Wash Ware. Brown clay, chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with reddish-brown paint/wash.

Red-Brown Wash Ware. Orange clay, chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with reddish-brown paint/wash.

Dark-Rimmed Orange Bowl. Dense, orange-buff clay. Chaff tempered, but occasional small-sized white grits also used as temper. Brown paint on exterior.

Red-Brown Wash Ware. Dense, brown clay, chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with reddish-brown paint/wash.

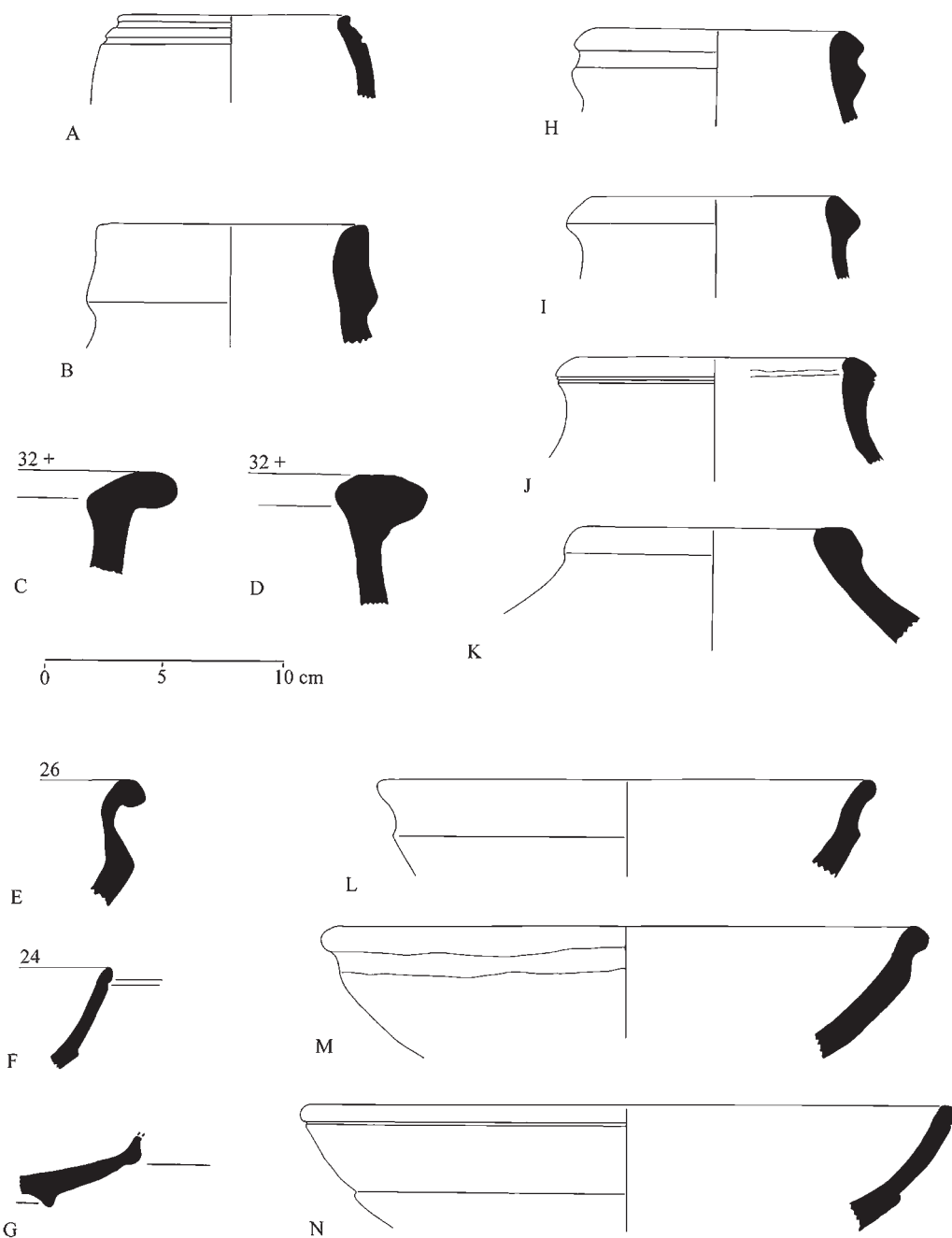


Figure 11: Surface pottery from high mound at Pir Hüseyin. General Collection: A, C-K, M-N; "Cut 1": B, L.

Figure 11: Surface Pottery from High Mound at Pir Hüseyin. General Collection: A, C-K, M-N; “Cut 1”: B, L.

Dense, chaff tempered clay with dark grey core and occasional small-sized white grits also used as temper. Exterior surface is lightly burnished.

Brown clay, chaff tempered with a dark grey core.

Brown clay, chaff tempered with a dark grey core. Occasional small-sized white grits also used as temper.

Dense, Brown-buff clay, chaff tempered but occasional small-sized white grits also used as temper.

Brown clay, fine chaff temper with a dark grey core. Occasional small-sized white grits also used as temper.

Neo-Assyrian Palace Ware. Dense, brown clay, fine chaff temper but occasional small-sized white grits also used as temper. Light burnishing on both surfaces.

Neo-Assyrian Palace Ware. Very dense, light greenish-buff clay. No visible temper. Light burnishing on both surfaces.

Dense, brown clay. Chaff tempered with grey core. Occasional small-sized white grits also used as temper.

Dense, brownish-buff clay. Chaff tempered with grey core. Occasional small-sized white grits also used as temper.

Dense, orange clay. Chaff tempered with grey core. Occasional small-sized white grits also used as temper. Fast wheel striations visible on both surfaces.

Red clay. Chaff tempered with grey core. Occasional small-sized white grits also used as temper. Traces of light horizontal burnishing strokes on exterior surface.

Orange clay. Chaff tempered but occasional small-sized white grits also used as temper.

Porous orange clay. Chaff tempered but occasional small-sized white grits also used as temper. Light burnishing on both surfaces.

Brown clay. Chaff tempered with grey core. Occasional small-sized white grits and small pebbles also used as temper.

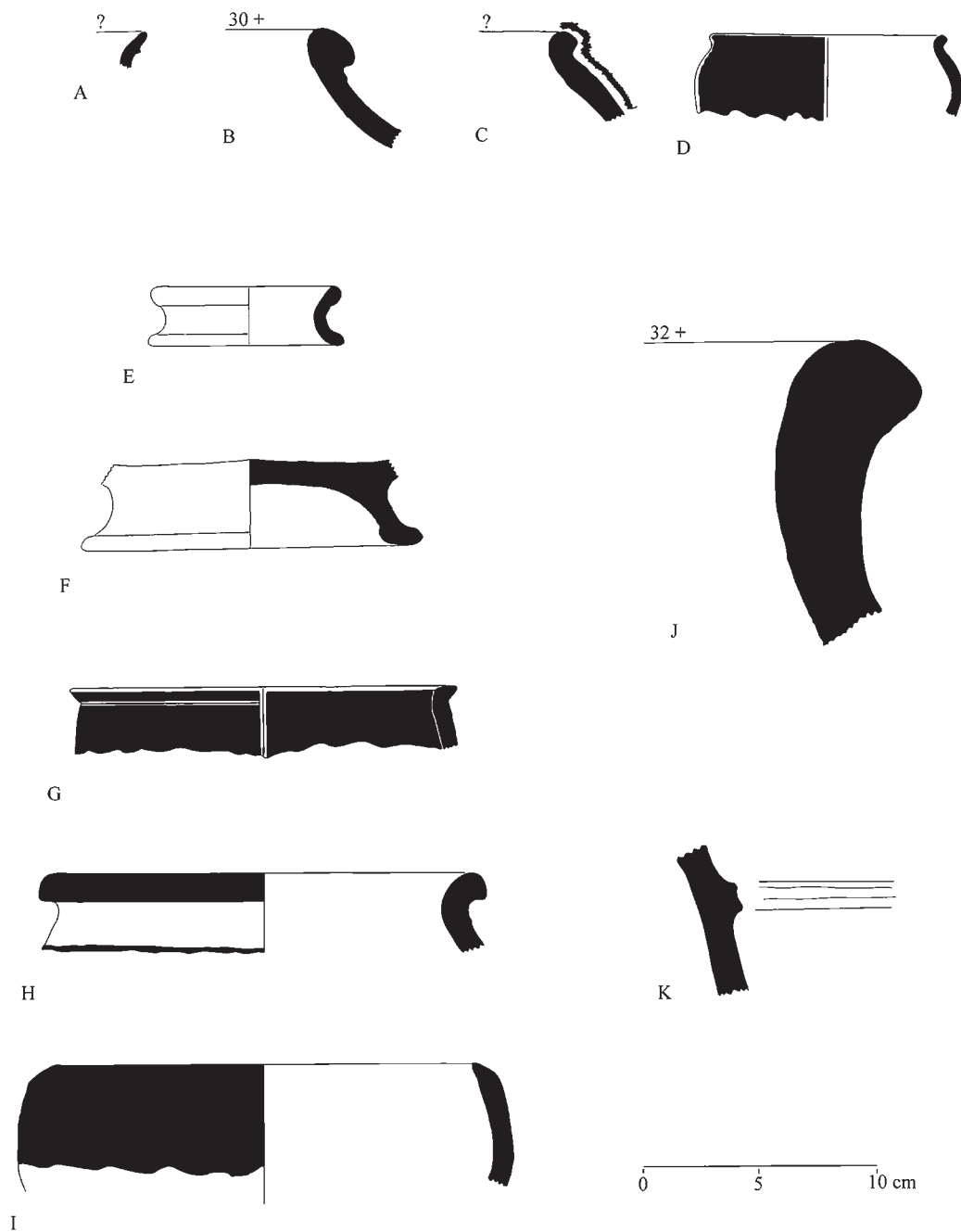


Figure 12: Surface pottery from the east sector at Pir Hüseyin.
East, Lower Terrace: A-D; East, Lower Town: E-K.

Figure 12: Surface Pottery from the East Sector of Pir Hüseyin.**East, Lower Terrace: A-D; East, Lower Town: E-K.**

- A. Buff clay with small-sized white grits used as temper.
- B. Brown clay. Chaff tempered with dark grey core. Occasional small-sized white grits also used as temper.
- C. Red-Brown Wash Ware. Brown clay, fine chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with orange-red paint/wash.
- D. Red-Brown Wash Ware. Brown clay, fine chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with orange-red paint/wash.
- E. Red-Brown Wash Ware. Dense, brownish-buff clay with grey core. Fine chaff tempering. Occasional small-sized white grits also used as temper. Eroded traces of brown paint/wash on exterior.
- F. Metallic ware? Dense greenish-grayish buff clay with no visible tempering.
- G. Red-Brown Wash Ware. Orange-buff clay, fine chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with orange-red paint/wash.
- H. Red-Brown Wash Ware/Khabur Ware. Dense, brownish-buff clay with grey core. Chaff tempering. Occasional small-sized white grits also used as temper. Exterior surface is covered with light brownish-buff slip. Orange paint on rim and body.
- I. Dark-Rimmed Orange Bowl. Dense, orange-buff clay. No visible tempering other than for occasional small-sized white grits. Brown paint on exterior.
- J. Red-Brown Wash Ware. Chaff tempered brownish-buff clay with gray core. Thickly applied red paint on exterior surface.
- K. Red-Brown Wash Ware. Brownish-Buff clay. Chaff tempered but occasional small-sized white grits also used as temper. Paint/wash eroded on exterior surface.

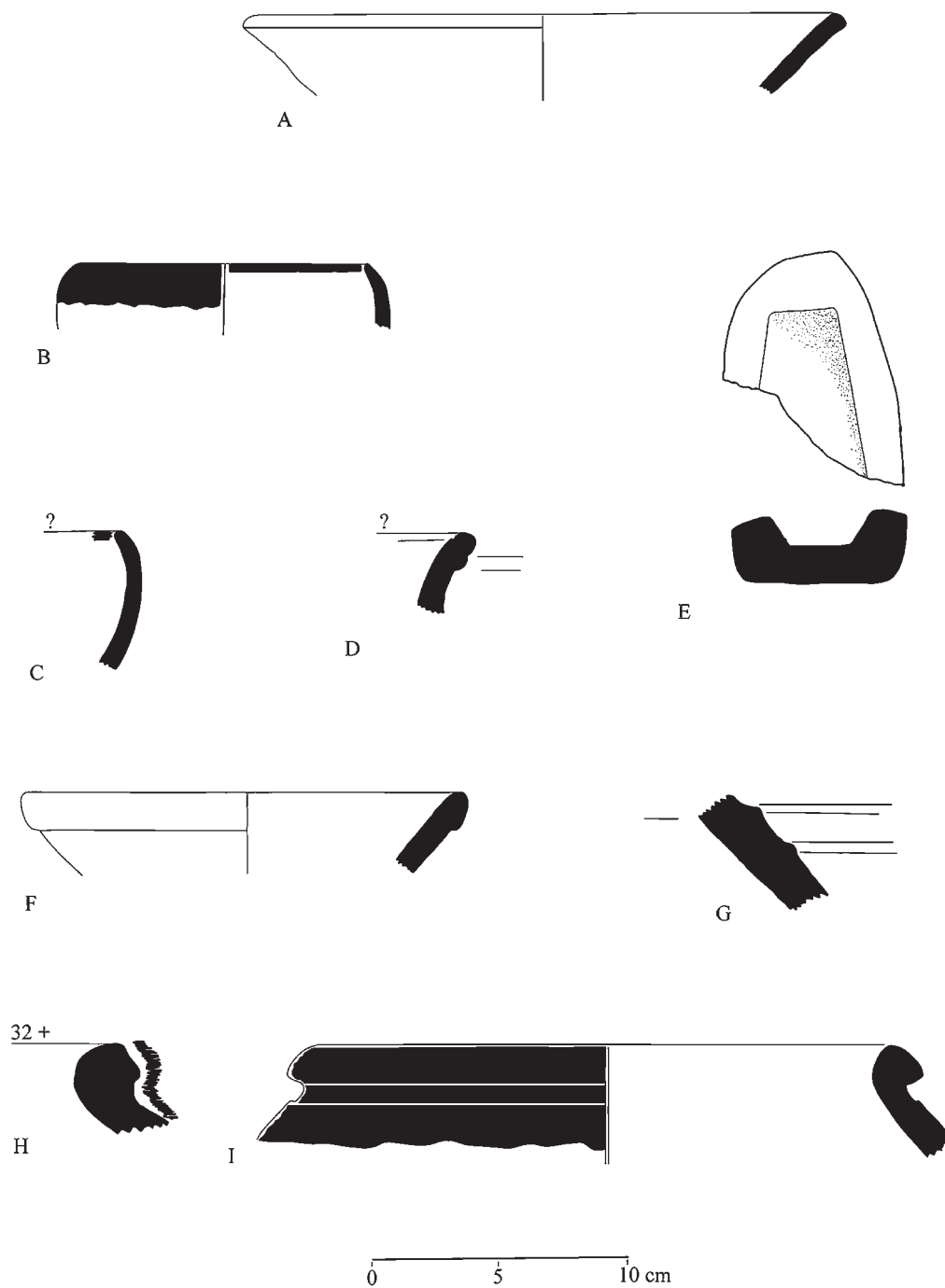


Figure 13: Surface Pottery from the north sector of Pir Hüseyin, Lower Town.

Figure 13: Surface Pottery from the North Sector of the Pir Hüseyin Lower Town.

- A. Dense, chaff tempered clay. Fast wheel striations visible on exterior.
- B. Dark-Rimmed Orange Bowl. Dense, chaff tempered clay. Occasional small-sized white grits also used as temper. Brown paint on exterior.
- C. Dark-Rimmed Orange Bowl. Dense, orange, chaff tempered clay. Brown paint on rim interior. Eroded traces of paint on exterior surface.
- D. Red-Brown Wash Ware. Chaff tempered orange clay with gray core. Eroded traces of paint on exterior surface.
- E. Limestone.
- F. Red-Brown Wash Ware. Chaff tempered clay with occasional small-sized white grits. Eroded traces of paint on exterior surface.
- G. Red-Brown Wash Ware. Coarse chaff tempered brown clay with dark gray core. Eroded traces of paint on exterior surface.
- H. Red-Brown Wash Ware. Chaff tempered brown clay. Brown paint on exterior surface.
- I. Red-Brown Wash Ware. Chaff tempered brown clay with grey core. Red paint/wash on exterior surface.

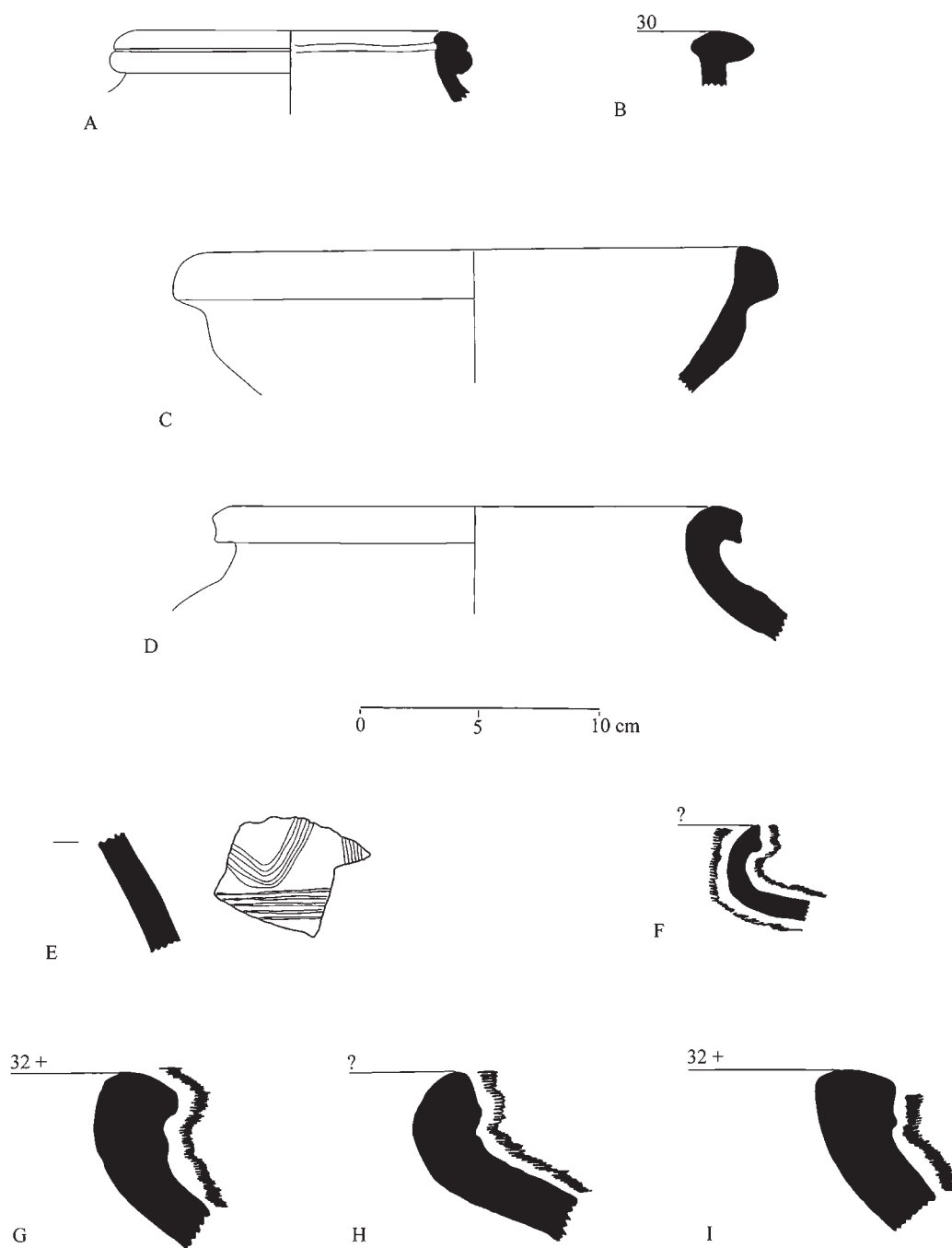


Figure 14: Surface Pottery from the west sector of Pir Hüseyin, Lower Town.

Figure 14: Surface Pottery from the West Sector of the Pir Hüseyin Lower Town.

- A. Buff clay with light grey core. Fine chaff temper but occasional small-sized white grits also used as temper.
- B. Yellowish-buff clay. Chaff tempered.
- C. Dense, brownish-buff clay with mixed chaff and grit temper. Fast wheel striations visible on interior surface.
- D. Red-Brown Wash Ware. Dense, greenish clay, possibly an over fired waster. Mixed fine chaff and small white grit tempered.
- E. Dense, buff clay. Small white grits.
- F. Red-Brown Wash Ware. Dense, orange-buff clay. Chaff tempered but occasional small-sized white grits also used as temper. Exterior surface covered with thick red paint/wash.
- G. Red-Brown Wash Ware. Buff clay with mixed chaff and grit tempering. Exterior surface covered with thick orange paint/wash.
- H. Red-Brown Wash Ware. Dense, buff clay with mixed chaff and grit tempering. Exterior surface covered with brown paint/wash.
- I. Red-Brown Wash Ware. Buff clay with dark grey core. Mixed chaff and grit tempering. Exterior surface covered with red paint/wash.



Figure 15: Example of Dribbled White Wash Ware (right) and Red-Brown Wash Ware recovered from a looted burial at the extramural cemetery of Simak Tepesi Mezarlığı.

THE LATE CHALCOLITHIC SETTLEMENT OF BARCIN HÖYÜK

Fokke Gerritsen, Rana Özbal, Laurens Thissen, Hadi Özbal, Alfred Galik¹

INTRODUCTION

This report presents the Late Chalcolithic levels at Barcın Höyük,² located in the Yenişehir Basin in the eastern part of the province of Bursa (figure 1). Excavations began in 2005 and earlier reports have appeared in this journal and elsewhere (Roodenberg, van As and Alpaslan Roodenberg 2008; Gerritsen and Özbal 2008, 2009, 2010). The Barcın Höyük Excavations take place in the context of the long-term regional research project ‘Early Farming Communities in the Eastern Marmara Region’, carried out by the Netherlands Institute for the Near East and the Netherlands Institute in Turkey.

The earliest levels encountered so far at the site are Late Neolithic, dating to the mid to late seventh millennium. Excavations reveal that there was a hiatus in occupation, thereafter, spanning more than two millennia. Settlement on the mound resumed in the Late Chalcolithic period, probably during a relatively short period at the beginning of the fourth millennium BC. The research priorities set for the upcoming seasons of excavation, focusing on the Neolithic levels, make it unlikely that major remains from the Late Chalcolithic period will be encountered. A presentation of the findings at this stage in the research project seems to be in order, therefore, also in light of the fact that presently Late Chalcolithic settlements are still very poorly known in northwest Anatolia.

The site of Barcın Höyük (figure 2) consists of two low mounds connected by a saddle, and covers a total area of about 2 hectares. The eastern, larger and higher, mound rises to about 4 meters above the plain. Surface finds indicate that prehistoric occupation was concentrated at the eastern mound. Geographically, Barcın Höyük is situated at the transition from the basin proper to the lowest extremities of the hill range to the north. Wetlands, terrain suitable for arable farming, and upland environments would all have been within easy walking distance from the prehistoric settlement.

¹ FG: Netherlands Institute in Turkey, Istanbul; RÖ: TÜBA (Turkish Academy of Sciences) Postdoctoral fellow, Istanbul University; LT: Thissen Archaeological Ceramics Bureau, Amsterdam; HÖ: Boğaziçi University, Istanbul; Alfred Galik, University of Veterinary Medicine, Vienna. LT contributed the section on the ceramics, HÖ on the axe, AG on the faunal remains; FG & RÖ are the authors of the other sections.

² Although the site appears as Barcın Höyük in some publications, its proper spelling is Barcın after a village in the vicinity. Before excavations began, several publications used the designation Yenişehir II, while topographical maps give the name Üyücek.

THE FEATURES

Late Chalcolithic features have been identified in four adjacent trenches: M10, M11, L11 and L12 (figure 2). Preservation of features is generally poor, due to the fact that they are in the uppermost zone of the deposits where ploughing and especially rodent burrowing has been most destructive. In addition, in some places the Late Chalcolithic features were disturbed by pits of Early Bronze Age, possibly Iron Age, and Byzantine date. In L12 and L11, burial pits of a Byzantine cemetery did some further damage. Nonetheless, a partial settlement plan appears in which the overall layout and some of the details are clear (figure 3). The main elements that have been identified are two houses, several ovens and hearths, a ditch, a number of postholes, and two jar burials and one inhumation burial. This first section presents the features by category. Stratigraphy and phasing are discussed below.

Vertically, almost all features belonging to the Late Chalcolithic occupation phase are part of a deposit that is about 50-65 cm in depth (figure 4). The absence of a thicker build-up of deposits suggests that the total duration of the Late Chalcolithic occupation phase was relatively short, presumably not spanning multiple centuries. At present there is one radiocarbon date of 4990 ± 40 BP, giving an approximate date for the Late Chalcolithic settlement of 3800 cal BC (Roodenberg, van As and Alpaslan Roodenberg 2008:55, 62). If occupation continued into later phases of the Late Chalcolithic period, its settlement remains have been completely destroyed by ploughing and soil removal.

Postholes and post-built structures

Most postholes were encountered in M11 (n=30); a handful also appeared in L12 (n=4) and M10 (n=8). There is a clear difference in the concentration of postholes in the interior and the exterior of the area surrounded by the ditch (figure 3). During the excavations, postholes were generally recognized because of the softer soil of their fill. Once a posthole was recognized, its sides and bottom were easily distinguishable when removing the fill. It is possible that some postholes have gone unnoticed, however, because of the numerous animal burrows cutting through the same deposits.

The postholes are of a variety of different sizes, ranging in diameter between 13 and 34 cm. Their depths are variable, between 9 cm and 1.6 m from the level at which they were first observed. In very few instances remnants of the wooden post could be recognized as vertical columns of slightly different colour within the posthole matrix.

The overall stratigraphy demonstrates clearly that all postholes discussed here belong to the Late Chalcolithic period. The existence of two or more building phases of post-built structures within the Late Chalcolithic period is hinted at by the fact that the tops of postholes were identified at different levels (between ca. 227.60 and 227.10 meters), but cannot be otherwise confirmed.

The only location where a set of postholes forms a quadrangular shape that can be interpreted as a framework for a building is placed within the eastern ditch segment in M10 (documented in 2006). This structure consists of three pairs of postholes, 1.3 to 1.5 m apart. The structure measures 3.0 by 1.2 meters. Nothing is known of its above-ground

construction or associated surfaces. The distribution of postholes in M11 shows no convincing linear or quadrangular constellations, leaving open the question of the nature of the structures that were built here.

The ditch and its modification

Excavations in M10, L11 and the northwest corner of M11 yielded remnants of a ditch. This feature measures on average 2.6 m in width and had a preserved depth of 40 cm. In section, the gently sloping sides and broad base can be clearly seen (figure 4). The ditch was filled with layers of fine silty sediments, varying between greenish-grey, light grey and light brown in color. The charcoal sample that produced the radiocarbon date mentioned above was retrieved from the ditch fill in trench M10. It is possible that rainwater was channelled off by the ditch, or that it held water in wet seasons. Given its location on the higher slopes of the mound, it is unlikely that the ditch had year-round standing or running water in it.

The plan of the ditch follows a rough curve, and forms a northern and western boundary for the main concentrations of Late Chalcolithic features. It continues for an unknown distance beyond the eastern edge of M10, and may well have surrounded a round or oval area. This area would have had a minimum diameter, judging from the known curve, of about 40 meters.

The function of the ditch cannot be determined with certainty, but its position in relation to the Late Chalcolithic features suggests that it formed a settlement boundary. Clearly, this would have had a largely symbolic character. For defensive purposes or even to restrict humans and animals to pass across, it would have served poorly.

Complicating the interpretation of the ditch as a settlement boundary is its absence in trench L12. It did not extend all the way to the south section of trench L11 and did not recur in the excavated northern half of L12. Several explanations are equally possible. The ditch may have been removed by slope erosion predating the Byzantine graves that were concentrated in L12, or it may have been dug away by Byzantine grave diggers. It is also possible that the ditch did not extend further south than trench L11, or that it had an interruption at this point and continued further to the southeast.

Until further excavations provide more evidence regarding the extent of the ditch, our assumption is that it demarcated the boundary of the settlement. Ditches have been recognized within and around Neolithic and Chalcolithic settlements in northwestern Turkey, and may have had different functions (İlıpınar: Roodenberg 2001: 2-3, figure 2; Aktopraklık: Karul 2009: 5, figure 8; Aşağı Pınar: Karul *et al.* 2003: 108-111).

After a partial refilling of the ditch, which probably took place gradually judging from the thin layering of the deposits in the fill, the channel was altered and restructured. This is most notable in M10, where the remaining depression was extended to the north to form a rectangular, semi-subterranean space (figure 5). There were no indications for standing walls or posts, and it is unclear whether there was any kind of roof. However, the space had clearly been used as an activity area, with a surface defined by white ash lenses (locus M10:62) and a small hearth (locus M10:61).

Mudbrick houses and associated surfaces

The excavations revealed two Late Chalcolithic structures of mudbrick, one in M11 and another in L12 (figure 3). Both were extremely poorly preserved and disturbed by animal burrowing. Excavations in M11 yielded two mudbrick walls at right angles (loci M11:13 and M11:14), located in the west of the trench. They were preserved to only about 2 rows of mudbricks high (about 16 cm). Both walls appear to have been about 50 cm wide. Wall M11:13, which is approximately 3.5 meters long, abruptly ends in the south where there may have been a door opening. Remnants of mudbricks that are visible in the southernmost part of the east section of trench L11 may be the continuation of this wall. From the corner with wall M11:13, wall M11:14 extended about 2 meters towards the northwest, but poor preservation makes it difficult to define its exact dimensions. No indoor surfaces associated with these walls were found.

Whereas the actual mudbrick wall remnants in L12 were challenging to identify as they were only visible as compacted, ‘bricky’ discolorations in the soil, fragments of the floors inside the structure were well preserved, especially in the northeast of the trench (locus L12:82). Multiple surfaces appeared between 227.30 and 227.00 in L12, suggesting either that there were several superimposed mudbrick structures in this location, or, more likely, that the floor of a single structure was replastered and maintained over several use-phases. A small basin-like circular depression with a 12 cm diameter is probably associated with the surfaces.

A few intact mudbricks were discovered south of the structure in L12, between a few possible postholes. Their relationship with the postholes, if any, and with the mudbrick structure to the north is difficult to assess.

Ovens and hearths

Excavations of the Late Chalcolithic levels in trenches L12, M10 and M11 yielded several ovens and hearths. The five ovens had diameters between 2 and 3 meters, whereas three hearths measured between 80 and 100 cm across. Although not preserved, another distinguishing feature is probable that ovens were covered by a (domed) roof, whereas hearths may have contained a fire with a low perimeter wall only.

The best preserved oven (locus M11:04, figures 3, 6) has an irregular keyhole-shaped plan. Its walls were between 10 and 15 centimetres thick and were made (at least in places) of small mudbricks. Access into the interior was presumably from the keyhole extension. The floor of the oven consisted of a thick layer of fire-hardened clay into which large numbers of potsherds were placed horizontally. This feature, probably improving the heat retention of the oven, characterizes all the ovens and some of the hearths. Against the southwestern wall segment of the oven, aside from the extension, a circular hearth was situated (locus M11:09, figures 3, 6).

After a brief phase of debris accumulation which sealed the oven and hearth, a new oven (also locus M11:04) was constructed in the same location. The walls of the higher oven were not preserved *in situ* although the high quantities of burnt loam pieces surrounding the structure suggests that it too would have been encircled by a mudbrick

wall. Nonetheless, the floor of this oven was well preserved and yielded three incidences of floor re-paving with ceramic fragments.

In the southeast corner of trench M11, an irregular area of orange-red burnt loam was recognized as remnants of another oven (locus M11:06). Its mudbrick wall construction can be seen in the section drawings (figure 4).

Two ovens in the northwest quadrant of L12 (loci L12:89 and L12:90, figure 3) were heavily disturbed by Byzantine graves. Their proximity to the plough zone further led to their deterioration. Only a small segment of the wall of the eastern oven could be identified. Both ovens were characterized by several superimposed hard-fired clay surfaces incorporating large numbers of potsherds. Their diameters were approximately 2 metres. Whether both ovens were used simultaneously, or whether one replaced the other is unclear. An interesting observation is that both of these adjacent ovens are located precisely where one would have expected the ditch to pass through. If they postdate the ditch, then it is strange that no evidence for its presence was noted when the ovens were removed. It is equally possible that the ditch ended before it reached L12 and that these ovens are actually contemporaneous with the architectural phase related to the ditch.

A total of three circular hearths were excavated in the Late Chalcolithic levels: one each in L12, M10 and M11. Although their floors were enclosed, it is possible that the perimeter was constructed as a low ridge rather than a wall reaching up to a high dome-shaped roof. No fragments of fired clay walls resembling *tandır*-oven walls were encountered. The floor of the hearth in M10 was constructed with a layer of burnt loam over horizontally placed potsherds which almost all were from a single vessel. This large platter (diameter ca. 40 cm, figure 8:6) was probably smashed in this location to serve as the hearth floor.

Burials

Three burials have been found that date from the Late Chalcolithic period, two infant jar burials and one simple inhumation of a young adult male. The latter and one of the jar burials were excavated during the 2005 and 2006 campaigns, and have already been published and will only be summarized here briefly.

The inhumation burial was found in M10. The body was placed on its left side in a contracted position. Physical anthropological study by Alpaslan Roodenberg indicates that this was an adult male who died when ca. 25-30 years of age (Roodenberg, van As and Alpaslan Roodenberg 2008:57).

The 2006 jar burial was found in L11 and contained a poorly preserved baby skeleton. Screening of the soil in the thick-walled jar yielded about 50 small bone beads, suggesting that the infant wore a necklace (Roodenberg, van As and Alpaslan Roodenberg 2008:57).

In 2009, another jar burial (locus M10:111) appeared unexpectedly from the east section of trench M10, after excess water from sprinklers in an adjacent field ran down the trench side for a night. The crushed but reconstructable jar and contents could be salvaged while still in the section, but proper excavation was impossible. A cursory investigation showed that the burial was that of an infant about one year in age (J. Pearson

personal communication 2009). From the soil inside the jar, two tiny beads made of a white stone were retrieved, 3 mm in diameter and 1.8 mm thick.

STRATIGRAPHY AND PHASING

Stratigraphic observations of superimposed and intersecting features indicate that the settlement went through several changes within the Late Chalcolithic period. These observations are not enough to separate all features and deposits into discrete phases, but it is possible to propose a partial sequence.

Figure 4 shows the east, south and west sections of M11 and the west section of M10. Between 227.75 and 227.25 meters (as measured on the east section of trench M11), a relatively thin horizon of lighter grey soil over a darker grey-brown soil horizon runs through the profile and was in fact encountered throughout trenches M10, M11 and L11, and less clearly also in L12. This has been interpreted as a developed soil with an E (eluviation) horizon overlying a B (subsoil) horizon. While pedological study of this phenomenon is ongoing, current evidence indicates that the developed soil represents the latest Late Neolithic mound surface, on which much later the Late Chalcolithic inhabitants built their settlement. The long hiatus between both periods would have enabled soil formation to take place. In stratigraphic terms, the developed soil provides a clear *terminus post quem* for the Late Chalcolithic remains.

The earliest Late Chalcolithic features are (at least some of) the many postholes that were encountered in M11 (figure 3). One posthole (locus M11:32) was found underneath one of the mudbrick walls (locus M11:13), two postholes were found underneath the fired clay floor of oven locus M11:04, and two more appeared underneath the ashy deposits (M11:08) around this oven. In L11 there are several deep and irregularly shaped pits that were observed after the ditch fill had been excavated. Presumably they predate the digging of the ditch, but pottery found in them dates them to the Late Chalcolithic period. Contemporaneity with the postholes is possible but could not be established.

The ditch, the two houses, and the ovens in M11 are probably contemporaneous, judging from the spatial organization of these features (figure 3). From oven locus M11:06 several superimposed, irregular surfaces extended to the west and south, but not as far as the nearby house. The smaller hearth (locus M11:09) was built on top of one of the surfaces running up against the wall of the large oven, indicating that the hearth was a slightly later addition.

After the ditch went out of use and was partly filled in, a semi-subterranean space was created in M10, partly dug into the ditch fill, partly extending to the north. The stratigraphic sequence can be clearly seen in the west section of M10 (figure 4). A circular hearth and fragments of surfaces indicate an activity area, which postdates the ditch but may well have been in use while the houses in M11 and L12 were still inhabited. Although a stratigraphic connection is missing, the post structure that was dug into the refilled ditch in M10 may well have been in use at the same time as the semi-subterranean space, given their close proximity and location with the ditch.

Jar burial locus M10:111 was dug into the uppermost fill layers of the ditch, and thus also postdates its use and refilling. The second Late Chalcolithic jar burial and the inhumation burial could not be linked stratigraphically to other features.

Finally, the stratigraphic position of the hearth and ovens in L12 in relation to the ditch is difficult to ascertain. As discussed above in the section presenting the ditch, it is possible that the ditch was not encountered in L12 because it had disappeared as a result of slope erosion or Byzantine grave pits. In this scenario, the fact that ovens and hearth were not completely dug away in Byzantine times indicates that they lay underneath, and thus predated the ditch (and consequently, the houses). In an alternative scenario, the hearth and ovens of L12 were set in a semi-subterranean structure dug into the filled-in ditch, similar to the M10 example. It cannot be ruled out that we failed to identify the ditch in our excavations in L12, given the overall poor preservation. However, the fact that the feature was relatively easy to identify in other trenches makes this scenario less likely.

The following provisional phasing can now be proposed, based on the observations presented above. From oldest to youngest:

LC phase 1

Post structures in M11, ovens and hearth in L12, and pits in L11.

LC phase 2a

Ditch, mudbrick structures, and ovens and hearth of M11. Probably also some of the postholes of M11 belong to this phase.

LC phase 2b

Semi-subterranean structure with hearth and post structure in M10. There is no concrete evidence to confirm this, but it seems likely that the mudbrick houses continued to be inhabited during the use of the structures in the disused and partially refilled ditch.

LC phase 3

Burials.

LATE CHALCOLITHIC CERAMICS FROM BARCIN HÖYÜK

The Late Chalcolithic pottery from Barcın Höyük has only been cursorily studied and awaits both a better sample and a more in-depth investigation. What follows should be seen as a preliminary assessment, still lacking quantification and fabric analysis. The current report is based on an assessment of ca. 1000 sherds.

Technological aspects

The assemblage comprises two ware groups distinguished primarily by surface treatment. A plain burnished ware (PBW) of black, occasionally brown colours has wall thicknesses varying between 8 and 10 mm. Vessel surfaces are smooth and medium to

high burnished on the insides and outsides, but individual strokes are visible; the lustre occasionally acquires a graphite-like shimmering (although no graphite seems to have been used). More commonly, diluted clay slips, naturally containing fine mica flecks, are routinely applied all over the vessels' inside and outside walls. Occasionally, individual burnish strokes appear as blackish lines over a greyish-brown background that is also burnished, as if these darker strokes represent a final finishing burnish. In mixed deposits, Late Chalcolithic PBW body sherds are difficult to distinguish from Late Neolithic body sherds when the latter have a mixed sand fabric (quartz and feldspars). Dishes, bowls, jugs and jars are all preferably plain burnished.

By contrast, most of the pots (in the strict sense) belong to a coarse ware group (CW), where vessel surfaces are generally untreated, remaining roughish with a sandpapery feel. Vessel insides are smoothed mostly, and outsides are cursorily burnished at most. Exterior colours vary between pale brown, greyish and pale orange; interior colours are greyish while cores are black. Wall thicknesses are between 10 and 13 mm.

Two main fabric groups are macroscopically discerned (using a 10x hand lens). A fibre-tempered fabric with probably several subgroups depending on the amount of organic additions is used for all vessel categories. Coarse Ware pots are preferably manufactured from a coarse variant, having a gritty texture with abundant, fine-medium-sized, angular, shiny quartz, yellowish and brown feldspars, and ill-sorted fibre non-plastics in variable degrees of quantity, from sparse to dense. As can be observed from the burnt-out cavities on vessel surfaces and fractures, these fibres can be quite long (up to 8 mm) and are often thin and curvilinear, suggesting grassy plants rather than (chopped) chaff or straw. Less coarse variants of this fabric with much smaller amounts of fibres seem to have been used preferably for the paste of PBW vessels, although this needs confirmation by further analysis. A second main fabric group is mineral-tempered only, fibres being absent. This sandy fabric is composed of dense, well-sorted amounts of fine to medium sized, angular or subangular grains of quartz and feldspar interspersed with ill-sorted, sparse, larger grains of sand. This fabric was used for manufacturing PBW vessels.

The basic manufacturing technique used is the coiling method, which especially in the CW is well visible. Lips were rounded or slightly pointed in the case of the large dishes. These large dishes are composite-built using moulds and coiling (see below). Whether the moulds were of the internal or external type is not clear, since dish surfaces were carefully finished on both sides by adding an all-over diluted clay slip, which was subsequently well burnished in order to acquire smooth surfaces. Lug handles on CW pots were attached by means of the plug method (figure 11:3). The presence of fire clouds on several vessels of diverse categories and ware groups suggests the Barcın Höyük Late Chalcolithic pottery was fired in open fires. Black, non-oxidised cores between sharp margins occurring especially among the fibre-tempered fabrics hint at brief firing periods, with rapid cooling in the air of the ready vessels.

Categorisation

A preliminary categorisation of the assemblage suggests a division into open and closed forms, each grouping subdivided into three basic-level categories: dishes, bowls and basins on the one hand, and jars, jugs and pots on the other hand.

Dishes

Large, shallow unrestricted forms are a very common feature in the Barcın Höyük Late Chalcolithic assemblage. The inverted-rim dishes (figure 7:3) have diameters approaching 40 cm and may have been made in a mould. The majority of dishes is consists of the carinated variant, the shoulder-rim sections of which are everted in varying degrees, and may be straight (figure 7:4-5), or more often concave in section (figure 7:6-7; figure 8). All examples display a slight, offset ridge on the interior where lower body and shoulder are joined (cf. figure 8:6), and I assume the parts below the carinations to have been manufactured in moulds since coils could not be observed.³ The shoulder-rim sections will have been added separately and were made using the coiling method (cf. figure 7:2,4,5). Diameters of these carinated dishes vary between 32 and 40 cm; the lips tend to be rounded or tapering towards the top. The complete dish from figure 8:6 displays strong use-wear traces on its exterior base.

Bowls and basin

Deep and incurving bowls are rather rare at Barcın Höyük (figure 9:1-2). The CW deep bowls (figure 10:2-3) and the CW basin (figure 10:1) do link up with the CW holemouth pots and may have played an additional role in food processing and/or cooking. They seem to have come without handles or lugs.

Jars and jugs

Very rare as well, the rim fragment of figure 9:3 is reconstructed as having two opposite strap handles, probably connecting the rim and shoulder. The analogy is with the one-handled jugs and two-handled jars from the Ilıpınar Phase IV burial ground assemblage (Roodenberg, Thissen and Buitenhuis 1989-1990, figures 17:3; 18:1), which have funnel-shaped necks and globular bodies, including flat-sectioned strap handles. Sections of such handles do occur occasionally in the Barcın Late Chalcolithic assemblage, one of them attached to a convex-sectioned body sherd indicating a globular body as well. Single examples of a jug and a jar are present in CW (figure 10:4 and 10:5 respectively).

Pots

Apart from a unique example of a PBW lugged pot (figure 9:4), CW holemouth pots with two opposing lug handles plugged in just below the rims are very common in the Barcın Late Chalcolithic (figure 10:6; figure 11). They have uneven walls and seem to have been made rather quickly without too much attention being paid to surface finish

³ Cf. also Seeher 1987:39 on similar dishes from Demircihöyük, although he does not mention the mould aspect.

and general appearance. Bases were flat: from trench M11 comes a base fragment with a diameter of 14 cm, and, importantly, showing an inside which is cracked due to heating. This evidence, as well as the general shape and the two sturdy lugs on the rim top suggest that these vessels served as cooking pots.

Evaluation

The Late Chalcolithic occupation at Barcın Höyük is presently the only one in northwest Anatolia that has yielded reliable archaeological contexts. Good parallels with the assemblage exist at Demircihüyük, but this site's material is not tied stratigraphically. Here, what Seeher called 'Ware F' and 'Ware G', are fully comparable to Barcın Höyük's PBW and CW, respectively (cf. Seeher 1987:21f., 38ff.). Characteristic categories at Barcın such as the inverted-rim dishes, the carinated dishes and the CW holemouth pots are prominently represented in the Demircihüyük corpus as well (Seeher 1987, pls. 24-28).

The Barcın Höyük material has also strong relations to the burial pottery from the Ilıpınar Phase IV cemetery (cf. Roodenberg, Thissen and Buitenhuis 1989-1990:92f.). Especially the inverted-rim dishes and the one- and two-handled jugs and jars from Ilıpınar link up to similar pieces at Barcın Höyük. The Barcın Höyük CW finds a parallel in a CW pot with two strap handles from an Ilıpınar burial (Roodenberg, Thissen and Buitenhuis 1989-1990:110, figure 18:2). The peculiar 'tulip beakers' from the Ilıpınar burial field are not found at Barcın.

Farther away from the Yenişehir-Eskişehir basins parallels become weaker, although general correspondences can be drawn. At Late Chalcolithic Beycesultan near Denizli in Aegean Turkey, carinated dishes from levels XXVII and upward, for instance, are compatible with Barcın Höyük (Lloyd and Mellaart 1962, figures P8:6-7, 11; P.10:3-8, 16-20). More generally, the assemblage structure of Beycesultan Late Chalcolithic resembles the Barcın Höyük assemblage in its categorical simplicity constituted by large dishes, jugs and jars and coarse ware holemouth pots.

While not having the large carinated dishes, the Late Chalcolithic assemblage of Bağbaşı in the Elmalı region further south, has some conceptual correspondences in the coarse ware with very crude and simple bucket shapes (Eslick 1992, pls. 24-34), the way in which lugs are 'plugged' into the vessel walls (Eslick 1992, pls. 49:161; 50:167; cf. Barcın, figure 8:3), and another type of large dishes (Eslick 1992, pl. 17).

From Turkish Thrace, parallels for the Barcın Höyük dishes may be found at the sites of Kavaklı and Yumurta Tepe (Erdoğu 1998, figures 2-3), although the material stems from survey evidence only.

Barcın Höyük's Late Chalcolithic assemblage thus appears to fit within a larger area spreading over northwest, west and southwest Turkey, sharing similar attitudes towards manufacture, vessel size, proportions, and assemblage structure. Such conceptual correspondences may well reflect shared attitudes towards vessel use, presentation and manipulation, as well as to shared categorisation concepts.

LATE CHALCOLITHIC SMALL FINDS

The Late Chalcolithic levels yielded few small finds from stratigraphically secure contexts. While most of the objects made of clay, bone and stone are not characteristically Late Chalcolithic in date and would probably not be out of place in Late Neolithic contexts, our excavations yielded at least one metal axe (see below) which is distinctively Late Chalcolithic and for which several comparatives exist.

The Late Chalcolithic bone tool assemblage is quite rudimentary when compared with the finer examples known from the Late Neolithic levels at this site. To date, only awls and spatula fragments have been discovered in the later phase. At least one bone spoon fragment also appeared in Late Chalcolithic contexts but it is unclear whether this is an intrusive find mixed in from earlier levels. In addition to bone, excavations of this phase yielded a pierced shell pendant.

Among the clay objects sling pellets are by far the most numerous. They often seem to have rounded biconical ends and are made of dense fine clays. The clay objects also include several figurine fragments, although these are all very poorly preserved. One interesting find is the miniature unbaked clay vessel which on its inside shows the nail impressions of its maker. A conical token is another clay find that could be assigned to the Late Chalcolithic. Interestingly, the only other object that could be categorized as a token was a small spheroid made of white stone, probably marble. Stone was used for other objects and vessels as well. Excavations yielded a fragment of a small cup with flaring sides, also probably of marble. Harder stones were used for the production of stone axes, of which at least two can securely be dated to the Late Chalcolithic phase. The Late Chalcolithic was a time when metal axes were slowly beginning to replace their stone predecessors. The copper axe BH2175 from M11 is an important and characteristic artefact that allows us to situate the Late Chalcolithic settlement at Barcın Höyük within a broader cultural setting.

ARCHAEOLOGICAL ANALYSIS OF A FLAT AXE FROM BARCIN HÖYÜK

During the 2007 excavation season, a flat axe with a broken butt was recovered (BH 2175) from the Late Chalcolithic level of trench M11. The axe had a highly flared and partly rounded cutting edge with straight sides (figure 12). The blade has a rectangular cross section. It has a broken butt so the original length cannot be determined but its current dimensions are 7.7 by 2.3 by 0.6 centimetres and it weighs 68 grams. The axe had been cast in an open mould, after which the final shape was produced by extensive hammering. This would also have resulted in considerable hardening. When found, the surface was encrusted with a thick patina. Moulds, slag or other materials indicative of local metal production have not been found at Barcın Höyük to date.

Flat axes were probably used both as a domestic implement and as a weapon. They first appeared in the fifth millennium BC, in the Near East, Anatolia and in southeast Europe. Generally, they are produced by casting in open stone or clay moulds to give a rough form, which is then hammered to attain the final shape. They come in a

variety of size and shapes and are sometimes difficult to differentiate from chisels. Some standard forms appear over a wide geographical area.

Comparisons

One of the earliest examples of a metal axe was recovered at Yumuktepe (Level XVI), dating to the Chalcolithic period (c. 5000 BC). This axe has a rounded cutting edge with a tapering side ending in a small rectangular butt. Metallurgical investigation indicates it was made by casting almost pure copper smelted from copper ores (Yalçın 2000). Pernicka *et al.* (1997) report on two flat axes, similar in form with long straight-sided blades and flared round cutting edges from Bulgaria: one of them is from Mezdra (VR-A1-2859) and dates to the Bulgarian Middle Chalcolithic while the other comes from the Late Chalcolithic Durankulak Cemetery (Grave 623, K1301). Both axes were made using almost pure copper, weighing 620 and 309 grams respectively. Also made from almost pure copper is a flat axe from the Chalcolithic levels of Kuruçay (Duru 1983). This axe has a similar flared cutting edge but concave sides ending in a rectangular flat butt. Although it dates to the Early Bronze Age, the flat axe from the Thermi excavations in Lesbos provides another close parallel to the Barcın Höyük axe (Lamb 1936, 29.9, 172, Pl. XXV). It also has a highly flared round cutting edge with straight sides, and had a broken butt like the Barcın Höyük axe.

The closest parallels to Barcın axe, both in typology and date, are the three axes from Ilıpınar's Phase IV Late Chalcolithic cemetery (ILIP 89/24, ILIP 88/33, ILIP 88/32). All three axes are flat and have highly flared cutting edges and straight sides and were made using arsenical copper (Begemann *et al.* 1994). They had arsenic concentrations ranging between 2.17 – 2.87 %. This is in accordance with the simultaneous appearance of arsenical copper artefacts across the Near East, Anatolia and Central Europe during the fourth millennium BC. The arsenical copper artefacts from Chalcolithic İkiztepe (Özbal *et al.* 2002) and Arslantepe (Palmieri *et al.* 1999) represent the most exquisite examples from Anatolia. While the production technology of arsenical copper is still debated, the Ilıpınar samples appear to be made by smelting arsenic-containing copper ores. The production technology of arsenical copper is still a matter of debate, but it has been concluded that the Ilıpınar axes had been made by smelting copper ores that contained arsenic. Lead isotope analysis of the Ilıpınar samples indicates that the closest possible ore sources are in the Serenceören region in the mountains of Çatal Dağ, located about 60 km southwest of Ilıpınar (Begemann, Pernicka and Schmitt-Strecker 1994).

Elemental composition and lead isotope ratios

The chemical analysis and lead isotope ratios of Barcın axe are given in table 1 and 2 respectively. The Barcın axe, like the Ilıpınar samples, is composed of arsenical copper with 3.58% arsenic.⁴ The high levels of arsenic, silver and nickel indicate that it is

⁴ We would like to express our special thanks to Dr. Ünsal Yalçın (Bergbau-Museum Bochum) for the elemental and lead isotope analysis of axe BH2175.

made from smelted copper. Comparison of the trace element distributions with those of the Ilıpınar samples shows a very close match. Even though this may indicate a similar ore source, the silver and gold concentrations of the Barcın axe are considerably lower and the lead isotope ratios have a different signature from the lead isotope ratios of the main cluster of Chalcolithic artifacts from Ilıpınar. Together these data suggests that the ore source for the Barcın axe was different from that of the Ilıpınar samples.

THE LATE CHALCOLITHIC FAUNAL REMAINS FROM BARCIN HÖYÜK

This report is based on a small Late Chalcolithic sample (number of identified specimens, i.e. NISP is 2554; see table 3). Domesticates dominate the assemblage. When the remains of “Lsm” (unidentified remains of large sized mammals like cattle) and “Msm” (unidentified remains of medium sized mammals like ovicaprines) are included, domesticates comprise roughly 90% of the faunal material. It is likely that the large majority of Lsm and Msm consists of the main domesticates.

Livestock farming, therefore, was the most important means through which the inhabitants obtained their protein supply. Other activities like game hunting, fishing and collecting molluscs were certainly not insignificant but contributed to the nutrition only in a minor way (table 4). The Late Chalcolithic inhabitants of Barcın Höyük hunted small game like hare and fox, as well as large game like wild boar and fallow deer. This exploitation pattern is not unlike that from the Early Chalcolithic levels of Ilıpınar (Buitenhuis 2008).

Livestock management in the Late Chalcolithic was based mainly on cattle and ovicaprines. Their relative importance depends on whether NISP (figure 13) or bone weight (figure 14) is selected for quantification. When calculated using bone weight, cattle comes forth as an important food source. The NISP figures, especially when the “Msm” values are included, indicate that ovicaprines were significant to the diet as well.

Among the ovicaprines, sheep appears to have been a favoured meat supply over goat. Similar patterns occur in the faunal assemblages from Menteşe and Ilıpınar (Gourichon and Helmer 2008; Buitenhuis 2008). Although pigs yield a relatively high bone weight, the apparent low NISP values probably argue for a less extensive exploitation of this species. Remains of a middle-sized dog type supplement this Chalcolithic faunal assemblage.

Cattle were undoubtedly exploited for meat in the Late Chalcolithic, yet the high quantities of adult cattle present at Barcın Höyük might point to dairying and the use of traction-power (figure 15). Pigs were used in this period extensively for meat production; piglets were slaughtered when they were barely a year old, while most of the individuals were culled before they reached adulthood, presumably after they had produced litter. The age structure of ovicaprines resembles the culling profile of pigs rather than of cattle, but the higher percentages of subadults and adults suggest they were also kept for their secondary products.

Identification so far indicates that bird hunting was practiced at Late Chalcolithic Barcın Höyük. Large and medium sized birds like cranes and ducks dominate the assemblage while smaller birds are absent (table 4). Evidence of freshwater fish exploitation is scarce, but this could be a result of excavation strategies. Molluscs appear to be quite common in this assemblage and may, like at Ilıpınar and Menteşe (table 4; Gourichon and Helmer 2008, Buitenhuis 2008), be indicative of nutritional strategies. Evidence shows that both large edible land snails and freshwater molluscs like *Unio* sp. and *Viviparus* sp. were exploited. As in Ilıpınar, the euryhaline blue mussel supplemented the diet. However, Barcın Höyük's Late Chalcolithic levels appear to lack marine shells, which were abundant at Ilıpınar. Instead, like at Menteşe, marine molluscs show surface modification. It is likely that oyster, scallop and edible cockle shells were collected dead at the beach and brought to the site for their raw material.

Overall, this small Late Chalcolithic animal assemblage contributes to a better understanding of the ecological and agricultural developments in the Chalcolithic Period in northwestern Turkey. Like the sites already mentioned in the greater Marmara Region, Barcın Höyük seems to fit the general picture of an agricultural community that also exploited terrestrial and, to a certain extent, aquatic resources.

DISCUSSION AND CONCLUSION

The significance of the findings presented above is directly related to the scarcity of stratigraphically intact contexts from Late Chalcolithic settlements in west and northwest Turkey (Schoop 2005: 228). To find even a handful of settlements that yield comparisons for the structural features of the settlement, the ceramics and the small finds, the gaze necessarily needs to range as far as the Lake District to the south and Turkish Thrace to the north.

From an assessment of the ceramic traditions at Barcın Höyük, it appears that there were similarities across this broad region in attitudes towards pottery manufacture, vessel size, proportions, and assemblage structure. On top of this shared foundation, specific ceramic traditions appear to have developed within smaller regions. The closest parallels for the wares, shapes and assemblage composition of the Barcın Höyük ceramics are found in a relatively small region which includes Demircihüyük to the southeast and Ilıpınar to the northwest. Ilıpınar's Late Chalcolithic remains comprise a cemetery, whereas the Demircihüyük finds do not come from stratigraphically reliable contexts. In other words, the Barcın Höyük remains presented here, fragmentary as they are, give us a first view of a Late Chalcolithic settlement in the Marmara region.

The settlement consisted of rectangular mudbrick houses, apparently single-roomed. In addition, there appear to have been structures built with timber frames. There was at least one rectangular semi-subterranean structure, which was probably not roofed. There were outdoor ovens and hearths in the vicinity of the houses. The faunal evidence presented above suggests that the settlement was inhabited by a farming community that relied on animal husbandry and occasional hunting. Undoubtedly crop farming was a major source of nutrition as well, but this is still under investigation.

A ditch appears to have marked the boundary of the settlement, although certainly not throughout the history of the Late Chalcolithic occupation, given that a semi-subterranean structure was situated partly inside the refilled ditch. More extensive excavations are necessary to determine whether the ditch did indeed form a settlement boundary and whether there was a circular organization of the houses within the settlement. If so, this would resemble the situation now known from the Early Chalcolithic levels of Aktopraklık (Karul 2009: 5, figure 8).

Strikingly, extensively investigated sites such as Aşağıpınar and Aktopraklık have not yielded evidence for Late Chalcolithic occupation. This raises questions about the density of occupation in the Marmara Region at this time. Based on current knowledge, major centres such as İkiztepe along the Black Sea and Arslantepe in the Euphrates Region and possibly Beycesultan in southwestern Anatolia, appear to be absent in northwest Turkey.

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| Element | Concentration (ppm) | Element | Concentration (ppm) |
|---------|---------------------|---------|---------------------|
| Ag | 320 | S | 61 |
| Sb | 32 | Fe | 46 |
| Te | 7.1 | Co | 2.0 |
| Au | 0.7 | Ni | 105 |
| Pb | 46 | Zn | 15 |
| Bi | 3.3 | Sn | 8.5 |
| Hg | 12 | Se | 46 |
| P | 2.0 | As | 3.58% |

Table 1: Axe BH 2175: elemental composition.

| Isotope | Ratio |
|-----------------------------------|---------|
| $^{208}\text{Pb}/^{206}\text{Pb}$ | 2.048 |
| $^{207}\text{Pb}/^{206}\text{Pb}$ | 0.8280 |
| $^{207}\text{Pb}/^{204}\text{Pb}$ | 15.75 |
| $^{206}\text{Pb}/^{204}\text{Pb}$ | 19.02 |
| $^{208}\text{Pb}/^{207}\text{Pb}$ | 2.474 |
| $^{208}\text{Pb}/^{204}\text{Pb}$ | 38.95 |
| $^{204}\text{Pb}/^{206}\text{Pb}$ | 0.05259 |

Table 2: Axe BH 2175: lead isotope ratios.

| Locus | Trench | NISP |
|-------|--------|------|
| 5 | M11 | 671 |
| 8 | M11 | 162 |
| 11 | M11 | 1 |
| 12 | M11 | 1 |
| 15 | M11 | 832 |
| 16 | M11 | 3 |
| 39 | M11 | 1 |
| 56 | M10 | 181 |
| 57 | M10 | 1 |
| 58 | M10 | 1 |
| 59 | M10 | 2 |
| 60 | M10 | 79 |
| 61 | M10 | 1 |
| 62 | M10 | 18 |
| 63 | M10 | 128 |
| 64 | M10 | 36 |

Table 3: Faunal remains: list of loci and trenches from which Late Chalkolithic faunal remains are included.

| | Bos Taurus | Ovicaprine | Ovis | Capra | Suid | Dog | Sus Scrofa | Dama dama | Lepus | Red Fox | "Lsm" | "Msm" | Mammals Indet. | Unid. Med. Birds | Anatine | Grus-Crane | Helix landsnail | Unio | Viviparus sp. | Myt, blue mussel | Cerast, cockle | Oyster | Pecten Glaber |
|----------------|------------|------------|------|-------|------|-----|------------|-----------|-------|---------|-------|-------|----------------|------------------|---------|------------|-----------------|------|---------------|------------------|----------------|--------|---------------|
| Indeterminates | | | | | | | | | | | | 1 | 6 | | | | | | | | | | |
| Longbone | | | | | | | | | | | 247 | 319 | | 1 | | | | | | | | | |
| Antler | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Cranium frags. | 27 | 15 | 2 | 2 | 50 | 2 | | 2 | | | 3 | 65 | | | | | | | | | | | |
| Hyalia | 2 | 1 | | | | | | | | | | | | | | | | | | | | | |
| Mandibula | 19 | 23 | | | 24 | 2 | | | | | 2 | 7 | | | | | | | | | | | |
| Teeth | 30 | 37 | | | 23 | | | | | | | | | | | | | | | | | | |
| Scapula | 19 | 33 | 4 | 1 | 26 | | | | | | 16 | 23 | | | | | | | | | | | |
| Humerus | 19 | 30 | 3 | 5 | 20 | 1 | 1 | | 1 | 1 | | | | | | | | | | | | | |
| Antebrachium | 1 | | | 2 | | | | | | | | | | | | | | | | | | | |
| Radius | 12 | 25 | 5 | 2 | 7 | 2 | | 1 | | | | | | | 1 | | | | | | | | |
| Ulna | 4 | 6 | 3 | 1 | 9 | 2 | | | | | | | | | | | | | | | | | |
| Carpus | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Metacarpus | 6 | 9 | 1 | 1 | 4 | 1 | | | | | | | | | 1 | | | | | | | | |
| Vertebra | 2 | | | | | | | | | | 27 | 17 | | | | | | | | | | | |
| Vert. Cervical | 23 | 14 | 4 | | 1 | | 1 | | | | | | | | | | | | | | | | |
| Vert. Thoracic | 15 | 18 | | | 7 | | | 2 | | | | | | | | | | | | | | | |
| Vert. Lumbar | 8 | 6 | | | 6 | | | | | | | | | | | | | | | | | | |
| Vert. Caudal | 2 | | | | 1 | | | | | | | | | | | | | | | | | | |
| Costa | 31 | 44 | 1 | | 32 | | | | 1 | | 109 | 126 | | | | | | | | | | | |
| Coxa | 13 | 18 | 4 | | 12 | | | 1 | | | | 1 | | | | | | | | | | | |
| Os sacrum | 1 | 2 | | | | 1 | | | | | | | | | | | | | | | | | |
| Femur | 14 | 18 | 1 | 1 | 8 | | | | | | | | | | | | | | | | | | |
| Patella | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Tibia | 14 | 36 | 2 | 4 | 11 | 1 | | 2 | 2 | | | | | | | | | | | | | | |
| Fibula | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Talus | 7 | | 4 | 1 | 1 | | | 1 | | | | | | | | | | | | | | | |
| Calcaneus | 8 | 5 | 4 | | 1 | | | | 1 | | | | | | | | | | | | | | |
| Tarsus | 4 | | | | | | | | | | | | | | | | | | | | | | |
| Metatarsus | 10 | 15 | 1 | 1 | 2 | 1 | | | | | | | | | | | | | | | | | |
| Metapodium | 16 | 6 | 1 | 1 | 2 | 1 | | | | | | | | | | | | | | | | | |
| Phalanx prox. | 9 | 6 | 3 | 1 | | | 1 | 1 | | | | | | | | | | | | | | | |
| Phalanx med. | 13 | 1 | | | 1 | | | 1 | | | | | | | | 1 | | | | | | | |
| Phalanx dist. | 8 | | 1 | | | | | | | | | | | | | | | | | | | | |
| Os sesamoideum | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Core of shell | | | | | | | | | | | | | | | | | 38 | | 1 | | 1 | | |
| Valve | | | | | | | | | | | | | | | | | | 21 | | 18 | | 1 | 3 |

Table 4: Faunal remains: species and parts of the body.

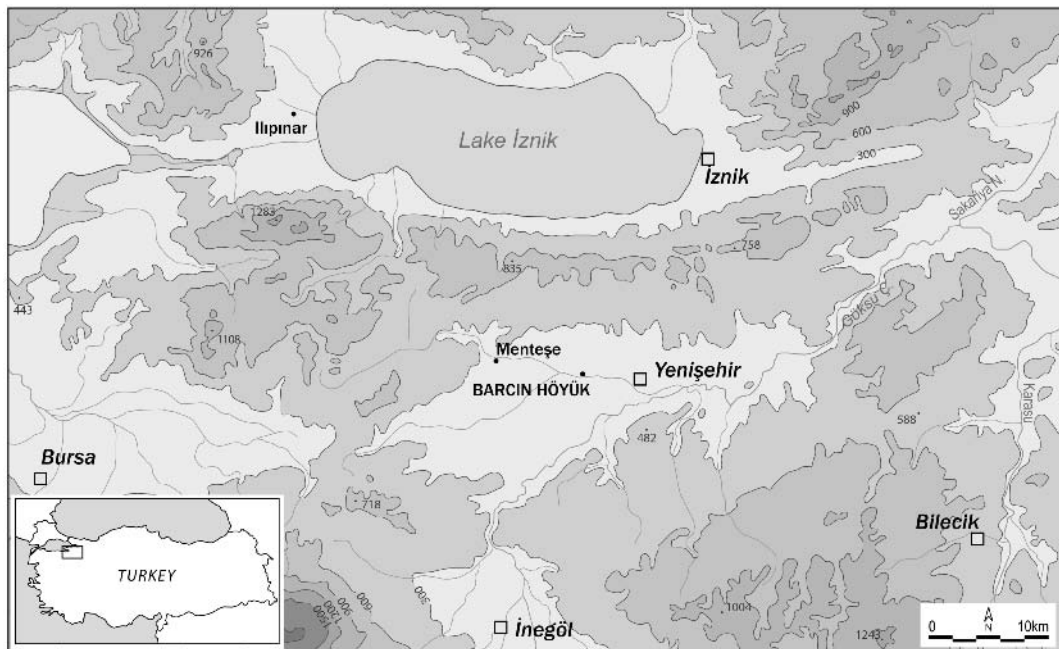


Figure 1: The location of Barcin Höyük in the Yenişehir Basin.

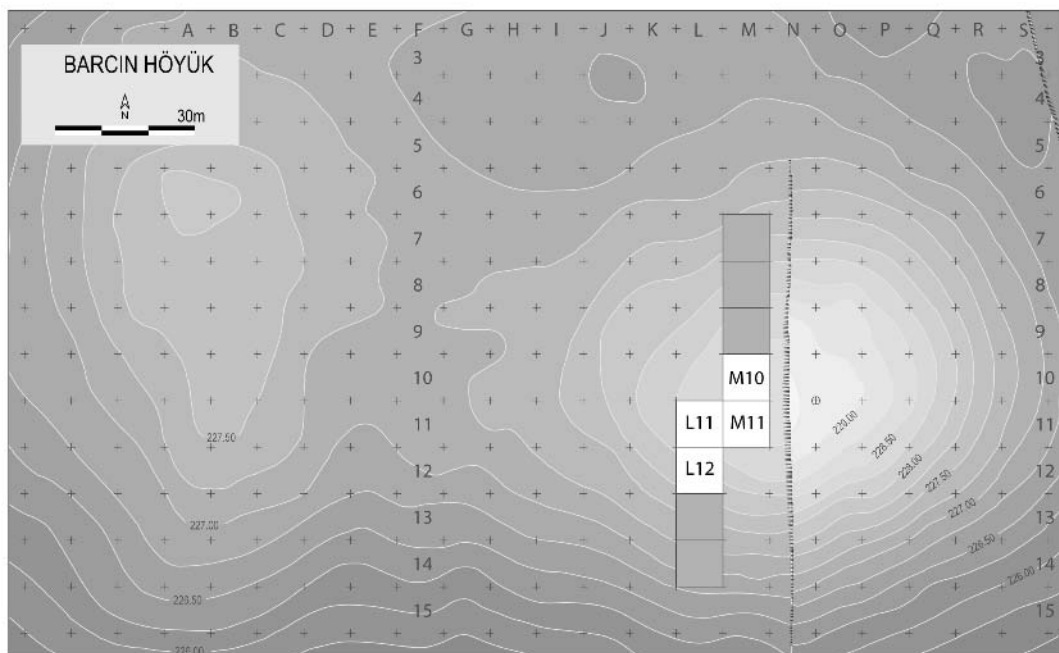


Figure 2: Elevation plan of Barcin Höyük with excavation trenches.

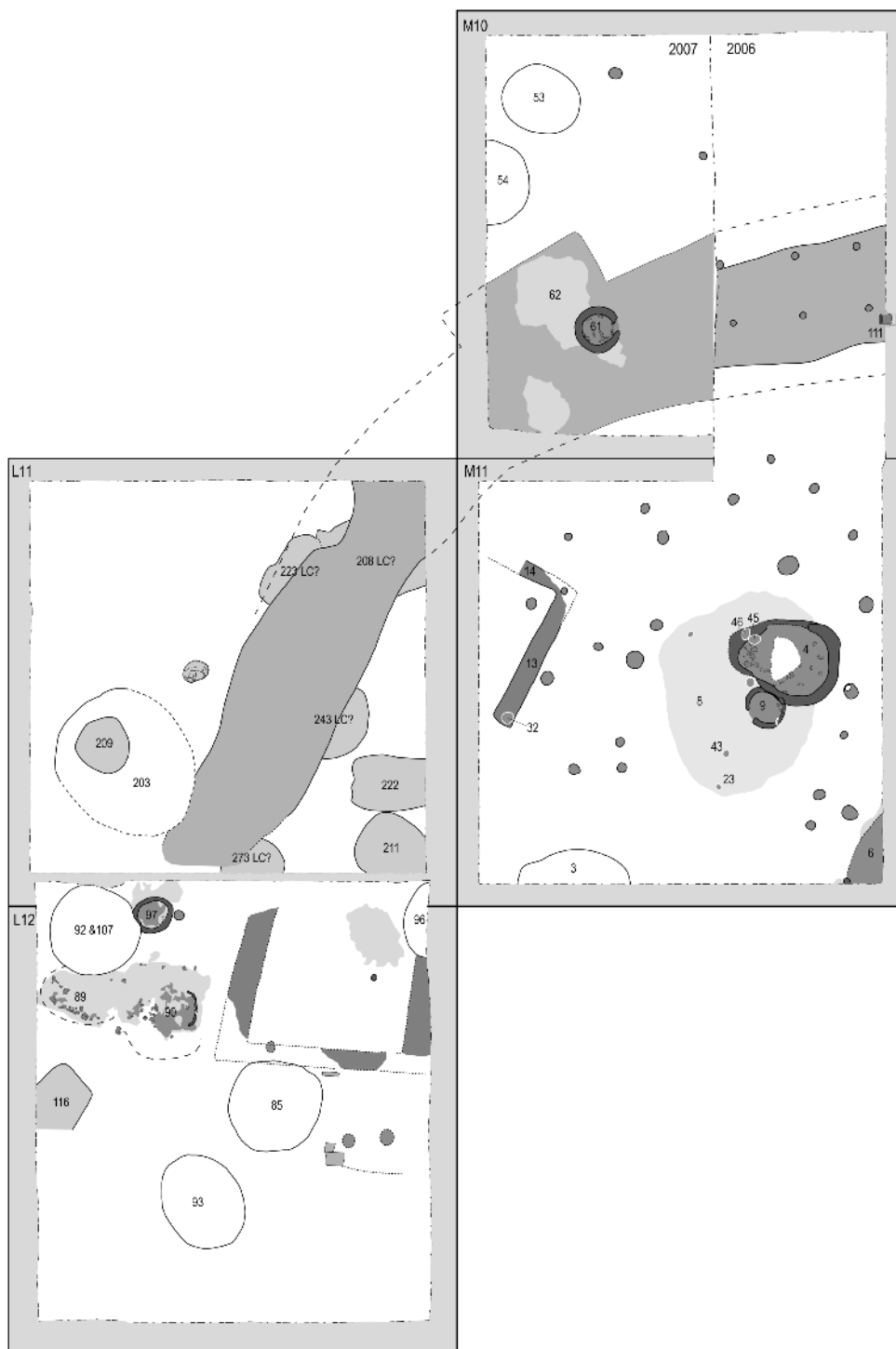


Figure 3: Overview of Late Chalcolithic features in trenches L11, L12, M10 and M11.

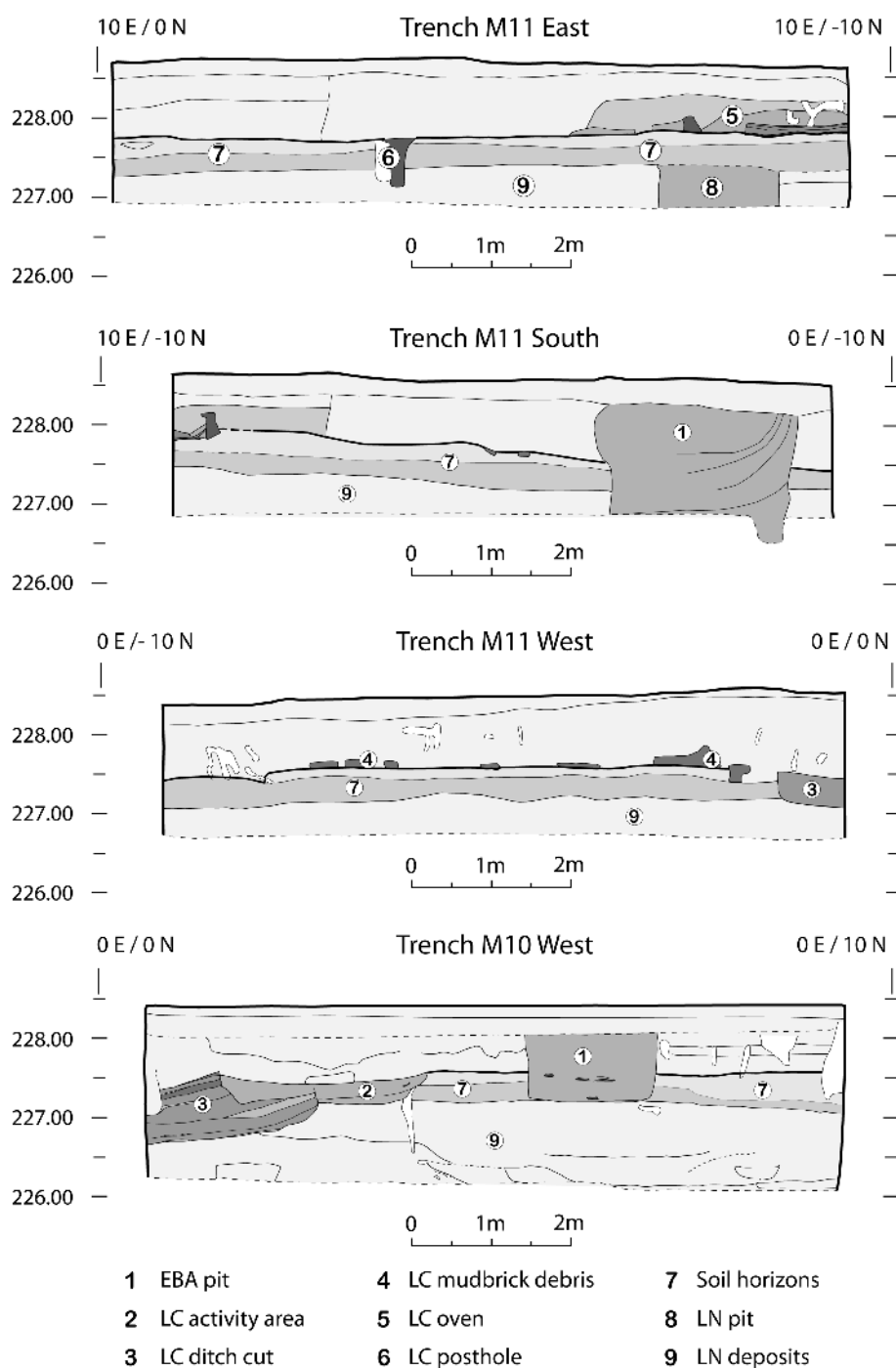


Figure 4: Section drawing of the east and south profiles of trench M11 (above) and the west profiles of M11 and M10 (below). The upper boundary of the Late Neolithic palaeosol is indicated as a thickened line.

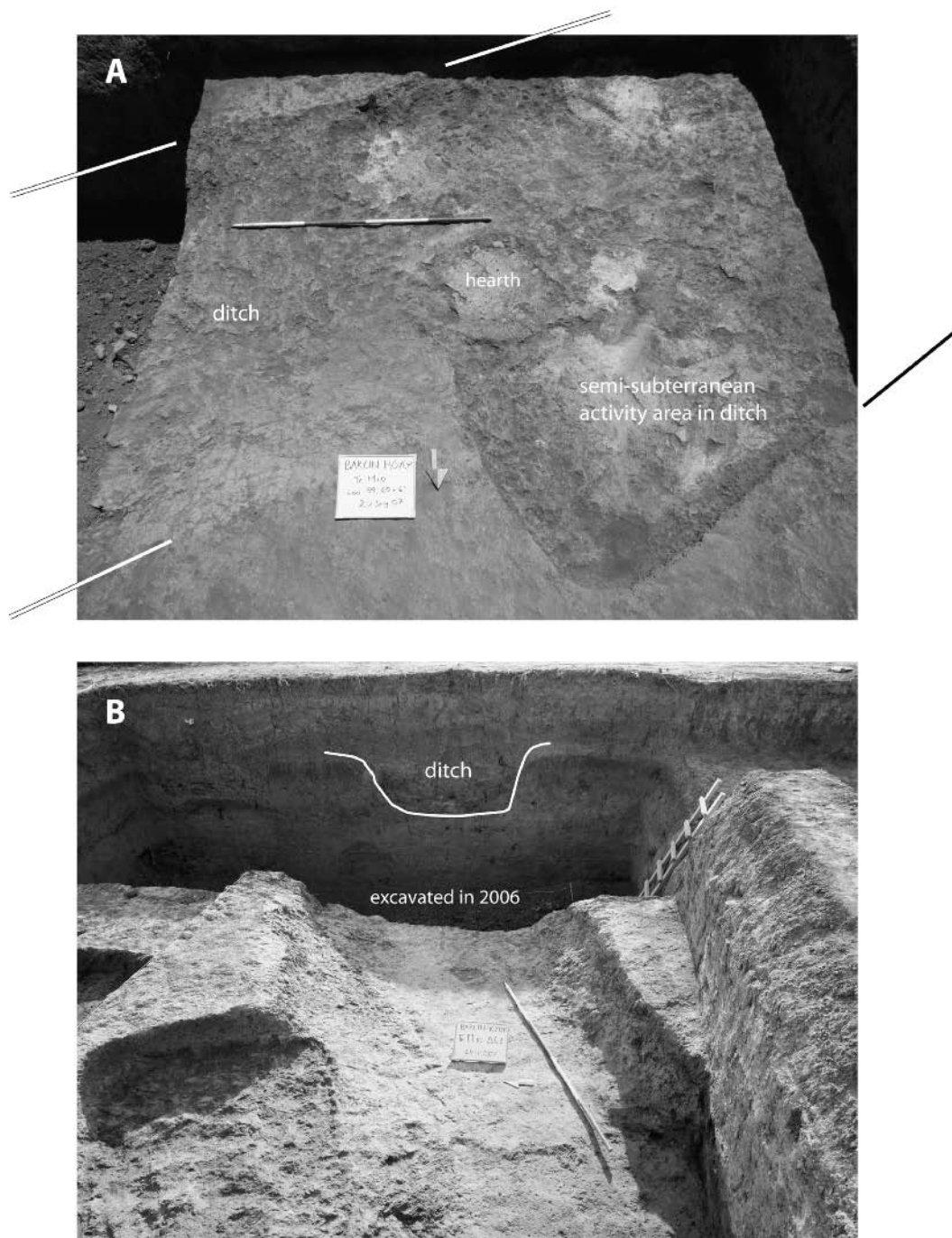


Figure 5: A: Trench M10 with partly refilled ditch into which semi-subterranean area with surface and hearth has been cut (photo taken from North); B: Trench M10 with ditch completely excavated. The semi-subterranean area extends to the left (after removal of hearth). The deeper area in the background represents the deep sounding M10-SS of 2006. The ditch is indicated in the East profile of M10 (photo taken from West).



Figure 6: Oven M11:04 and adjacent hearth M11:09 in trench M11.

CATALOGUE OF CERAMICS

Reference system: e.g., M10/BH 2755: trench/Barcın Höyük registry number.

Abbreviations: I=interior; E=exterior; D.=rim diameter (in cm, followed by percentage of radius preserved); H.=height (in cm); l.b./m.b./h.b.=low-, medium-, high burnish; h.a.p.=handle attachment place.

Colour codes: all references to *Munsell Soil Color Charts* (2000 edition).

Figure 7

1. M11/BH 3007. PBW hemispherical dish. D. 28/10%. E l.b., I m.b., E grey black, with black/grey burnish strokes. Black fractures.
2. M11/BH 2391. PBW hemispherical dish. D. 33/10%. I+E h.b., black + E fire clouds. Limestone/calcite, poss. crushed shell, sparse fine chaff.
3. M10/BH 2048. PBW inverted-rim ('antisplash') dish. D. 38/10%. I+E m.b., black with grey burnishing strokes.
4. M11/BH 2809. PBW carinated dish. D. 32/20%. I h.b., dark brown, E m.b., brown; fine chaff; three joining fragments.
5. M11/BH 3020. PBW carinated dish. D. 38/10%. I abraded, surface flaked off; E m.b., brown.
6. M10/BH 2615. PBW carinated dish. D. 34/10%. I+E m-h.b., I blackish, E brown-black; I+E dense mica shimmering; possible clay slip.
7. M11/BH 2809. PBW carinated dish. D. 36/20%. I+E m.b., I dark brown, E brown + some fire clouding. Long fibres, clearly coil-made top part, below carination mould made. Four joining fragments.

Figure 8

1. M11/BH 2809. PBW carinated dish. D. 31/10%. I m-h.b., black, E l-m.b., brown, mica shimmer.
2. M11/BH 2809. PBW carinated dish. D. 32/30%. I+E m.b., brown-black. Some chaff. Four joining fragments.
3. M11/BH 2186. PBW carinated dish. D. 33/10%. I well-smoothed, m.b.; E above carination well-smoothed, m.b., below l.b. 5YR 5/4 (reddish brown).
4. M10/BH 2348. PBW carinated dish. D. 35/20%. I+E m.b. in horizontal strokes; six joining fragments, some of which are black, others brown. E lower body is scraped, pared down. Some large quartz inclusions (4-11mm).
5. M10/BH 2615. PBW carinated dish. D. 35/10%. I m.b., E m-h.b., blackish. Fibres (long grasses).
6. M10/BH 2983. PBW carinated dish. D. 40/100%. H. 9.0-10.5. Complete, restored. I+E m.b., abraded. Long fibres. 5YR 5/3-4/3 (reddish brown). E base use-wear.

Figure 9

1. M10/BH 2348. PBW hemispherical bowl. D. 21/20%. I+E l-m.b. in horizontal strokes. 10YR 7/4 (very pale brown)-10YR 6/4 (light yellow brown).
2. M10/BH 2614. PBW incurving bowl. D. 24/10%. I l.b., E m.b.; grey black.
3. M10/BH 2324. PBW two-handed jar. D. 13/10%. I+E m.b., grey. Dense mica shimmer I+E.
4. M10/BH 2622. PBW lug-handled pot. D. 14/10%. I+E l.b., grey brown.

Figure 10

1. M10/BH 2048. CW basin. D. 30/10%. I+E smoothed, brownish with black smoke clouds. Large fibres.
2. M11/BH 2809. CW deep bowl. D. 31/10%. I+E l.b., orangey brown, black core. Large fibres.
3. M11/BH 2809. CW deep bowl. D. 33/10%. I+E l.b., brown, black core. Large fibres.
4. M10/BH 2614. CW jug with loop handle. D. 15/10%. I+E smoothed only; E greyish, I orange brown. Uneven walls, chaff.
5. M11/BH 2809. CW jar. D. 14/20%. I l.b., E smoothed only, brown, black core. Dense fibres. Rim use-wear.
6. M10/BH 2348. CW pot. D. 24/30%. I smoothed, l.b., E smoothed only. Some mica shimmer, very dense straw/chaff temper (fibres about 8mm long). 7.5YR 5/4 (brown). Unevenly walled, rim abraded at places, slightly brittle, may be refired slightly.

Figure 11

1. M10/BH 2614. CW pot. D. 27/10%. I+E scraped, smoothed, l.b., brown, black core; long fibres.
2. M11/BH 3019. CW pot with two opposing lugs. D. 24/20%. I+E smoothed only, brown, black core, long fibres.
3. M10/BH 2614. CW pot with two opposing lugs. D. 18/20%. I heavily scraped vertically, E attempts at burnishing. Grey-brown, black core. Very irregular walled.
4. M10/BH 2348. CW pot with two opposing lugs. D. 16. I+E smoothed only, brown; black core; long fibres. Unevenly walled, rim attritioned.

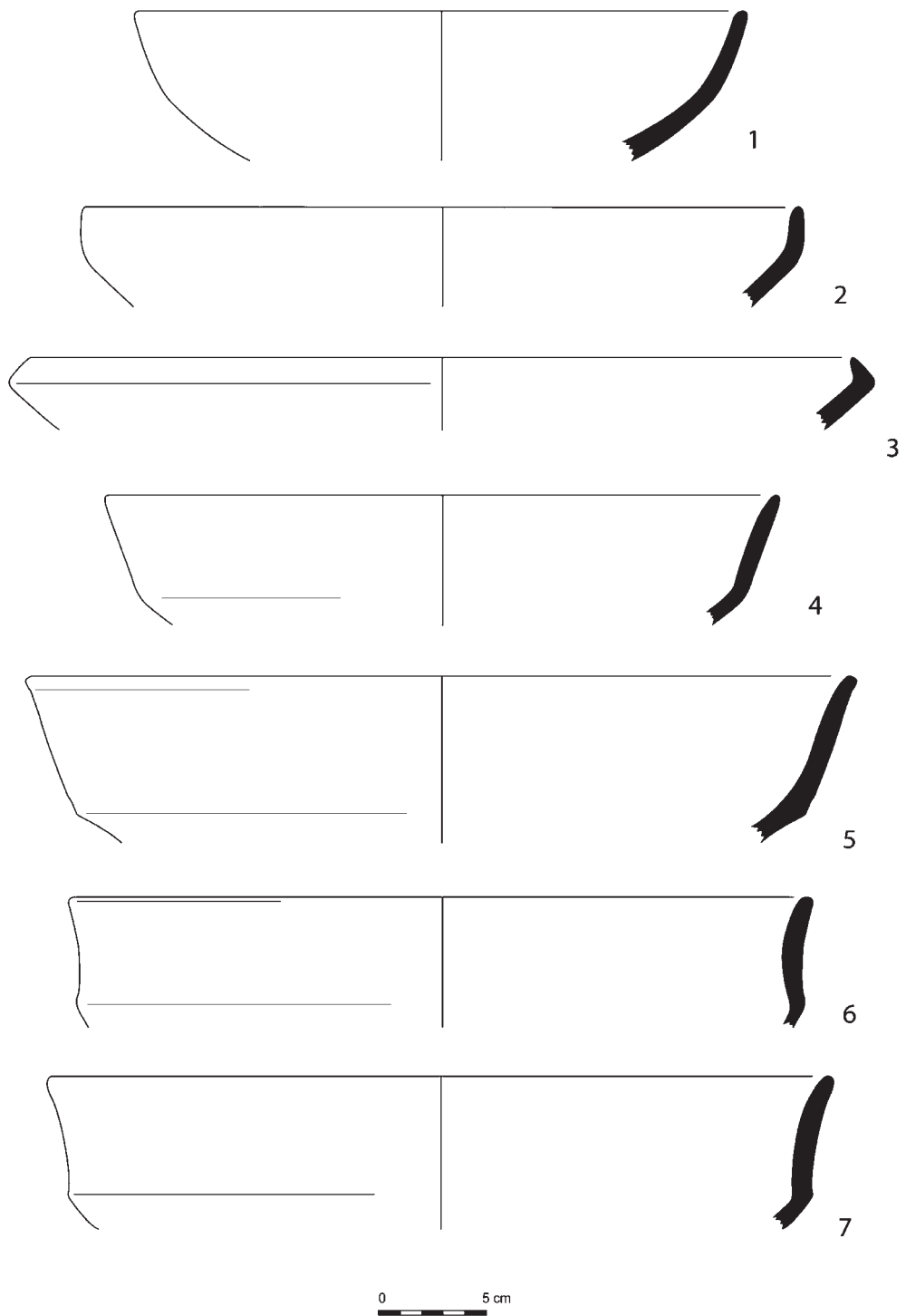


Figure 7: Barcın Höyük, Plain Burnished Ware; 1-7: dishes.

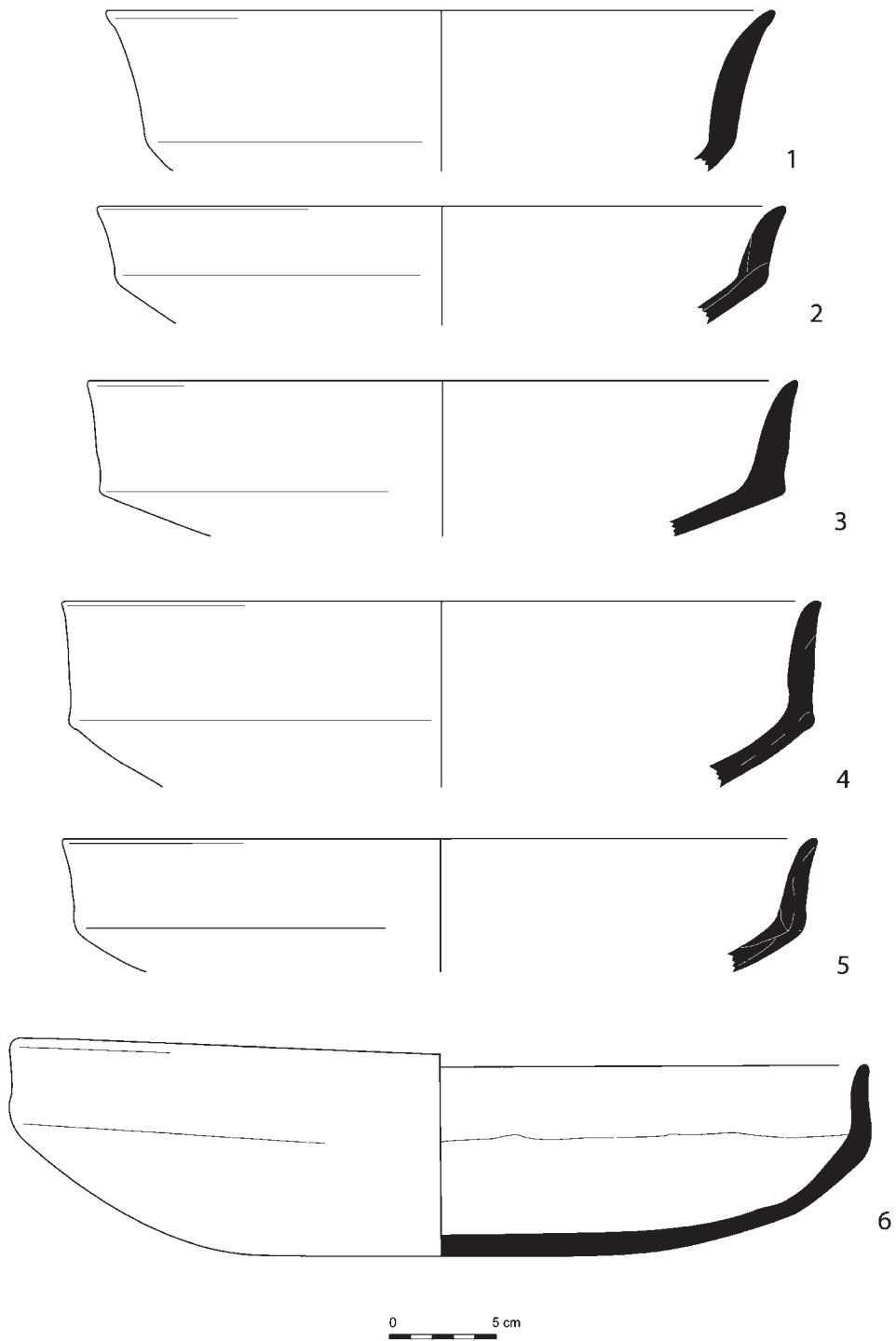


Figure 8: Barcın Höyük, Plain Burnished Ware; 1-6: dishes.

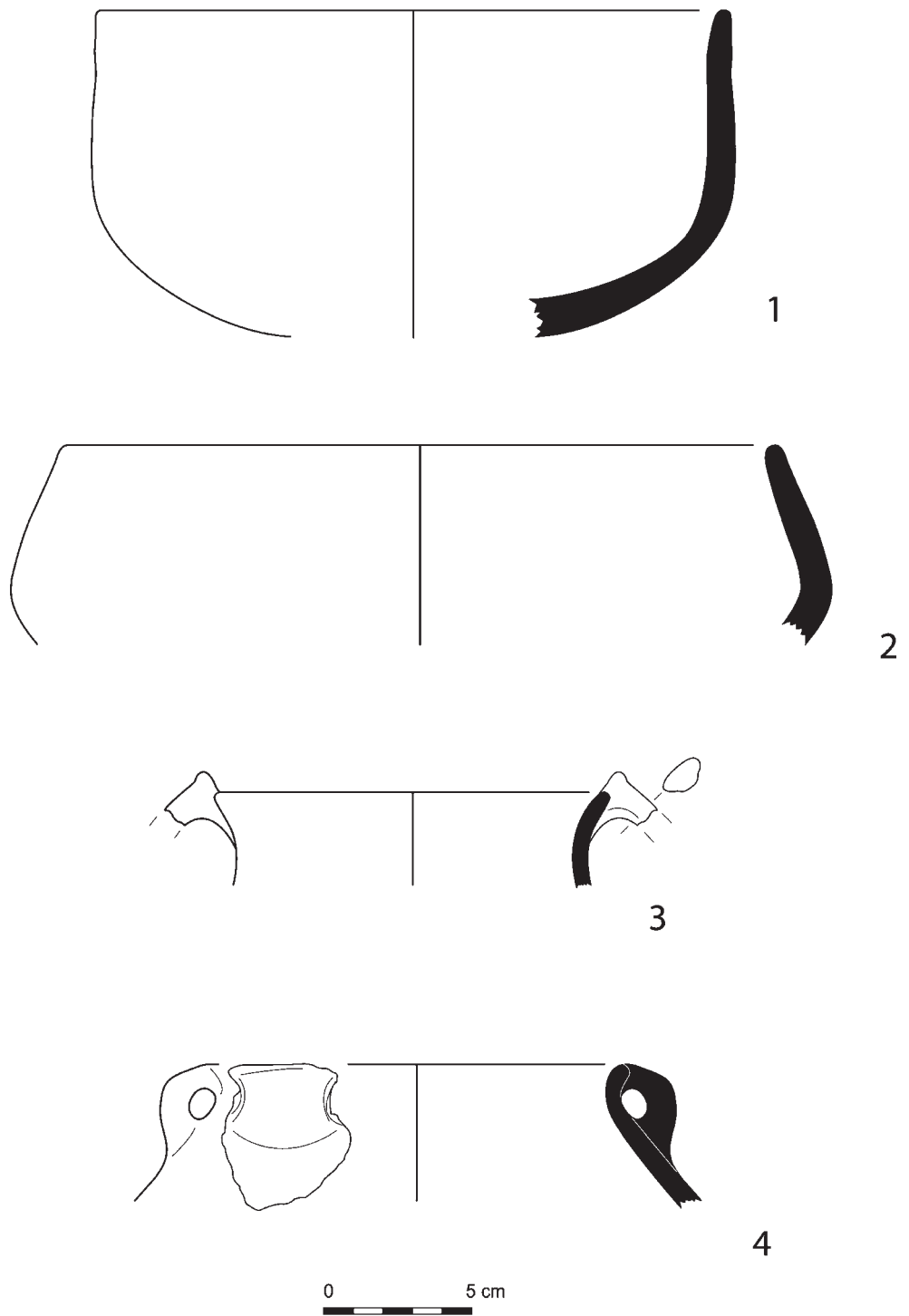


Figure 9: Barcın Höyük, Plain Burnished Ware; 1-2: bowls; 3: jar; 4: pot.

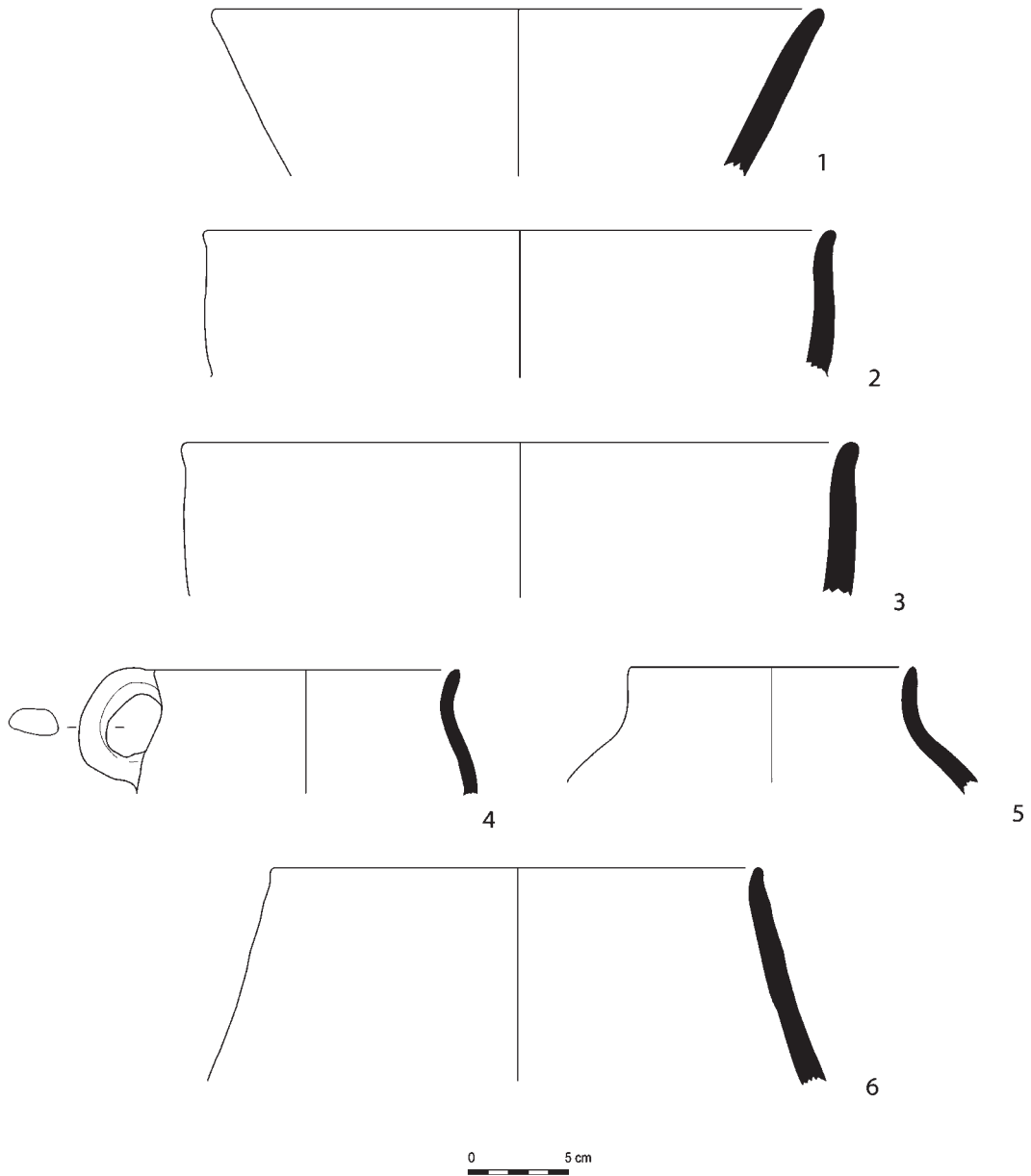


Figure 10: Barcın Höyük, Coarse Ware; 1: basin; 2-3: bowls; 4: jug; 5: jar; 6: pot.

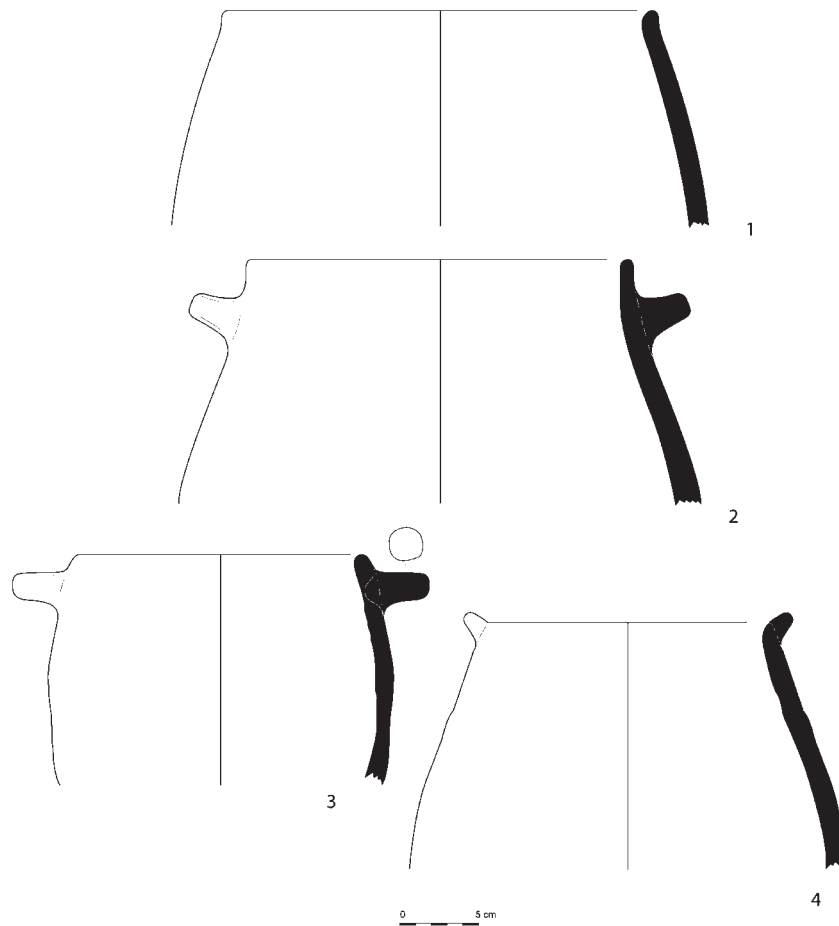


Figure 11: Barcın Höyük, Coarse Ware; 1-4 pots.

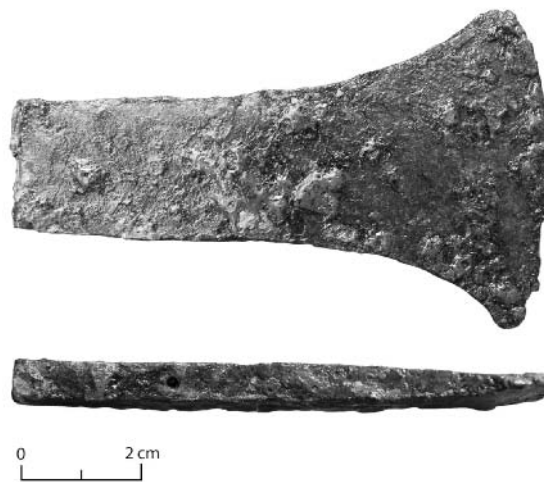


Figure 12: Photo of axe BH2175 after conservation.

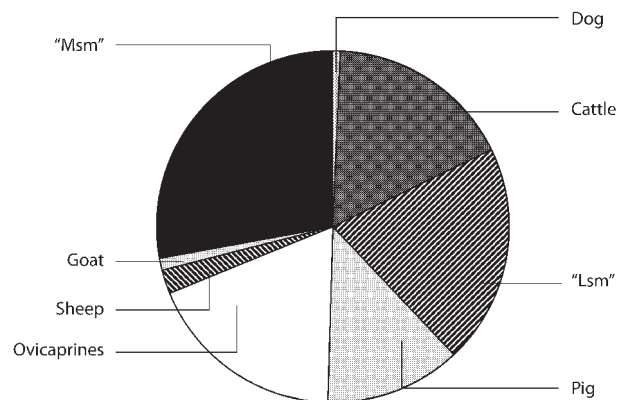


Figure 13: Quantification of the major domesticates by means of NISP.

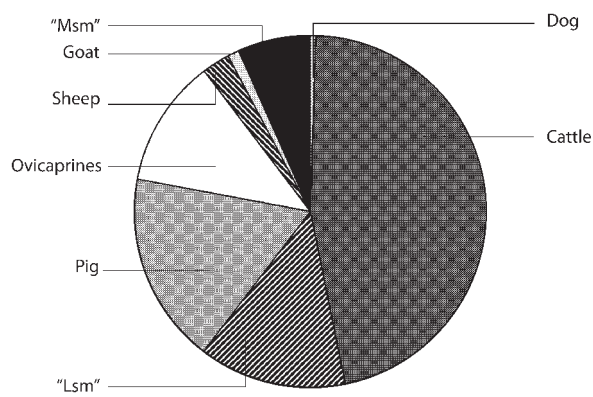


Figure 14: Quantification of the major domesticates by means of bone weight.

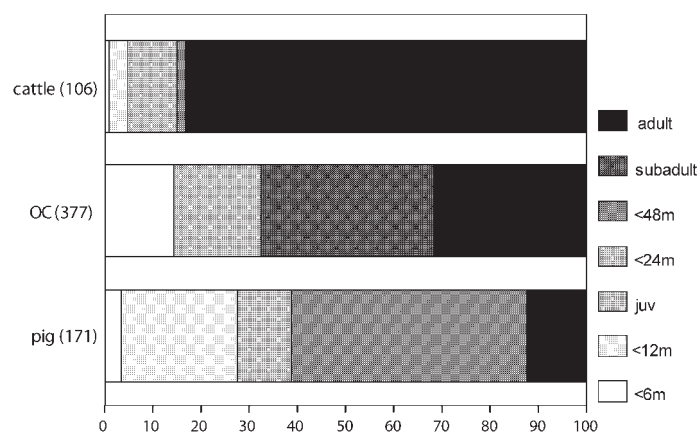


Figure 15: Culling profiles of the major domesticates.